Technology and East-West Trade

An Update

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Technology and East-West Trade:

An Update

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Foreword

Before the Export Administration Act expires on September 30, 1983, Congress must determine whether present law adequately addresses recent developments and should be renewed; or whether amendment or further legislation is required to meet changing technological, political, and economic circumstances; and if so, how such legislation should be drafted. This document, written at the request of Senators Garn and Riegel, Chairman and Ranking Minority Member of the Committee on Banking, Housing, and Urban Affairs, is designed to assist Congress in this process. It updates OTA's 1979 report on *Technology and East-West Trade.*

The latter study identified, and where possible evaluated, the economic, political, and military costs and benefits that accrue to the United States in its trade with the Communist world, discussing these impacts in the context of the then newly enacted Export Administration Act.

This report has a narrower scope but nonetheless revisits many of the same issues. It summarizes the major provisions of the 1979 Export Administration Act, highlighting those provisions which have led to problems of interpretation or execution; recounts major provisions in U.S. export control policy towards the Soviet Union since 1979; and discusses the impacts and implications of those events—for the domestic economy, for U.S. political relations with the NATO allies and with the Soviet Union, and for U.S. national security. The report concludes with a discussion of the policy alternatives open to Congress in 1983.

OTA is grateful for the assistance of the Council on Foreign Relations, which convened a discussion group whose members provided valuable insights into U.S.-Soviet trade during the early stages of the preparation of this report; for the assistance of the Congressional Research Service and the General Accounting Office; for the cooperation of the Departments of State, Defense, and Commerce as well as the Central Intelligence Agency and the staff of the National Security Council; and for the help of a number of individuals in and out of the Government, who reviewed the draft of the report.

John H. Gibbons

JOHN H. GIBBONS
Director

Technology and East-West Trade: An Update
Project Staff

Lionel S. Johns, *Assistant Director, OTA*
Energy, Materials, and International Security Division

Peter Sharfman, *Program Manager*
International Security and Commerce Program

Ronnie Goldberg,* *Principal Investigator*

Kate Tomlinson,* *Analyst*

Jonathan Sack,* *Research Assistant*

Administrative Staff

Jannie Coles Dorothy Richroath Jackie Robinson

OTA Publishing Staff

John C. Holmes, *Publishing Officer*

John Bergling Kathie S. Boss Debra M. Datcher Joe Henson

Doreen Foster Linda Leahy Donna Young

---

*OTA Contractor

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Angela Stent
Deborah Talbot
Myron Uretsky
U.S. Chamber of Commerce

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Summary: Issues and Findings

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CHAPTER I

Summary: Issues and Findings

Since the passage of the Export Administration Act of 1979 (EAA), evidence has mounted of an extensive Soviet military buildup; the U.S.S.R. has invaded Afghanistan; and it has borne direct responsibility for the imposition of martial law in Poland. These activities, coupled with the election of a U.S. President who takes a strong anti-Communist position, have all tended to reinforce the belief that U.S. national security requires greater protection of America's technological leads. Simultaneously, worldwide and domestic recession have increased the importance to the U.S. and other Western economies of a healthy export sector, requiring the development of new markets and the maintenance of established trading relationships. These trends together have made the question of the relative costs and benefits of trade with the Soviet Union a matter of increased interest at home and rising tension abroad, as the United States and its allies publicly disagree about the appropriate bounds of such trade.

The reactions to and consequences of the Soviet trade policies pursued under EAA have confirmed and sharpened a basic perception shared by many of the act's framers—there is no export control policy which does not incur undeniable costs and confer uncertain benefits on the United States. Before EAA expires on September 30, 1983, Congress has to determine whether the present law remains adequate in the face of these developments and should therefore be renewed without major changes; whether amendment or new legislation is required to meet changing technological, political, and economic circumstances; and, if so, how such legislation should be drafted.

This document, written at the request of the Chairman and the Ranking Minority Member of the Senate Committee on Banking, Housing, and Urban Affairs, is designed to assist Congress in this process. EAA applies to U.S. trade with all nations. However, this update focuses narrowly on American exports to the U.S.S.R. It does not argue for a particular "right" answer regarding the optimum direction and details of U.S. trade policy toward the Soviet Union. It does seek to clarify the issues and the tradeoffs entailed in crafting such a policy.

In 1979, the debate over export control ended with an attempt to strike a practical compromise between the demands for increased protection of U.S. national security; the ability to use trade leverage in the conduct of foreign policy; and predictability in the export licensing process. This effort was complicated by the nature of technology transfer itself. In the present environment, technology is complex, often intangible, widely diffused and subject to swift change. Thus, the difficulty of definition exacerbates the difficulties of control.

One way in which EAA sought to provide a framework for dealing with these issues was by clearly separating the criteria and procedures of controls enacted for national security from those instituted for foreign policy reasons. The former were to be applied only when necessary to restrict exports which make a significant contribution to the military potential of another country which would prove detrimental to the national security of the United States. The latter were to be used only where necessary to significantly further the foreign policy of the United States or to fulfill U.S. international obligations. However, controversies have arisen over the proper scope and implementation of both kinds of controls.

In the national security area, both the Carter and Reagan administrations have expressed concern over the magnitude of the Soviet military threat and the degree to which the U.S.S.R. has used U.S. and other Western technologies to increase that threat. But the ambition of protecting U.S. military technological leads through development of a list of militarily critical technologies—which both the United States and its allies would deny the U.S.S.R.—is far from being fulfilled. This effort has been inhibited at home, where the inclusiveness of the proposed critical technologies list has been criticized. It is also progressing very slowly abroad, where opinions on the bounds of military significance differ from those in the White House. The administration maintains that U.S. initiatives to expand and tighten export controls are succeeding, albeit on a case-by-case basis, in the Coordinating Committee for Multilateral Export Controls (CoCom), an informal organization composed of the United States and 14 of its allies (the NATO countries, minus Iceland and Spain, plus Japan) that attempts to implement a uniform export control system throughout the Western bloc. However, as the discussion below makes clear, it is unlikely that the other CoCom members will undergo the wholesale change of attitude necessary to bring the organization in line with the opinion prevailing in the U.S. Government.

Foreign policy controls have provoked a different set of problems. The EAA does not provide for congressional veto over the exercise of foreign policy controls other than those on agricultural commodities, but it does stipulate that affected industries be consulted and Congress be notified before the imposition of restrictions; and it directs the President to consider alternative actions and a detailed list of criteria before instituting the controls.

Herein lies a basic dilemma. **EAA assumes that the freedom to export is a right, to be abridged only under specific circumstances. At the same time, it grants the Executive sweeping powers to define these circumstances and places the burden of proof in questionable cases on the potential exporter. The Executive power is offset primarily by nonbinding provisions designed to limit its use; i.e., EAA requests, but does not enforce, Executive self-restraint. This is the root of much of the controversy which has recently surrounded export administration.** When an emergency produces a national consensus on trade controls, the law works well. Under less drastic circumstances where the President and Congress disagree as to whether export controls are appropriate or effective, the provisions of EAA tend to magnify basic policy differences, and the distinction between national security and foreign policy controls tends to blur. This was the case with both President Carter's partial embargo on U.S. grain sales to the U.S.S.R., and with President Reagan's controls on sales of oil and gas equipment and technology.

The grain embargo was imposed by President Carter after the Soviet invasion of Afghanistan. It roused intense domestic opposition, particularly from farm interests. Its economic impact on both the United States and the U.S.S.R. is still a matter of debate, but **it is probably accurate to say that the costs borne by the American economy were at least as great as those which devolved on the U.S.S.R., and that the Soviet Union seems to have succeeded in replacing the United States as its principal agricultural supplier.** In addition, the conduct of the grain embargo raised two troublesome policy issues. First, domestic political reaction resulted in legislation to prevent agricultural commodities from being singled out for use as foreign policy tools, and to guarantee the sanctity of agricultural export contracts. Exporters of goods not subject to these protections are now questioning the equity of such legislation. Second, the fact that the grain embargo was imposed on grounds of both national security and foreign policy has helped confuse important differences between these mechanisms.

The Reagan administration lifted the grain embargo, but provoked a controversy of its own when it imposed extraterritorial and retroactive controls on oil and gas technology exports to the U.S.S.R. as part of its reaction to the declaration of martial law in Poland. This action provoked intense controversy at home, and outrage in Western Europe. U.S. business has reacted to the situation's unpredictability: in some cases, the fate of license applications has been the subject of great uncertainty; in other cases, ongoing previously approved deals have been abrogated. The reaction abroad stemmed from the attempt to prevent foreign firms with legal commercial relations to U.S. firms from exporting petroleum equipment and technology to the U.S.S.R. This attempt failed in the sense that foreign governments and firms in France, the United Kingdom, West Germany, and Italy defied U.S. orders. The controls were lifted after Allied agreement to a series of studies on aspects of a unified East-West trade policy.

Europeans have charged that these foreign policy controls have been implemented in a hypocritical and unfair manner. In their view, the U.S. Government has bowed to domestic pressures to lift sanctions on grain, the one export in which the United States dominated the Soviet market; at the same time, U.S. officials continually call for allied restraint on sales of oil and gas equipment and technology, items in which Europe and Japan have a greater economic stake. **It could be argued that this seeming contradiction in U.S. policy has given the Europeans an additional justification for declining to endorse American views on East-West trade.** Other consequences for the United States of the major events in export administration, and the lessons to be learned from these consequences for the drafting of new legislation, are explored in the following pages.

Photo credit: TASS from SOVFOTO

American equipment at the construction of the second Shatyk—Khiva pipeline, U.S.S.R.

IMPACTS ON THE U.S. ECONOMY

The volume of U.S. trade with the Soviet Union is small and is likely to remain so. Its role in the U.S. economy is not well understood; assessments of its impact and importance have been controversial; and this impact cannot be measured solely through balance-of-trade statistics. **Important components of the foreign trade balance sheet are indirect and unquantifiable, and weighing their importance relative to the political and national security consequences of trade is a highly subjective matter.**

One view of the commercial value of U.S.-Soviet trade is that it is of such trivial economic consequence that policymakers should not be deterred from restricting it, no matter how slight the resulting national security gain. Those who question this position raise two points. First, exports can be of small significance to the economy as a whole, but still very important to specific sectors of that economy, particular industries, or firms within those industries. Second, **there are indirect impacts of the expansion or contraction of trade that are felt on both the micro and macro levels.** Both points are illustrated in the results of the recent U.S. embargoes on exports of grain, and oil and gas technology to the U.S.S.R.

In the case of grain, the magnitude of the economic costs to the United States is still debatable, but it is clear that these included the direct costs of farm support programs and the less easily quantifiable values of lost market shares and the acquisition by U.S. suppliers of the reputation as unreliable. It is charged that this reputation also now surrounds oil and gas equipment and technology firms, several of which have similarly lost—perhaps permanently—lucrative market shares.

The retroactive and extraterritorial nature of the oil and gas controls has given rise to other economic problems. **While it is disingenuous of U.S. firms to assert or imply that broad controls of this sort are likely to be frequently or lightly applied, it is similarly naive to deny that the possibility of such actions casts a pall over the conduct of international trade. Concern over possible interruption of future transactions may produce a chilling effect on the climate in which U.S. firms operate and on the business decisions they make. The broad scope of extraterritorial controls, as they were applied in this case, may lead to long-term adverse impacts on West-West trade, far more important to the U.S. economy than trade with the Soviet Union.** The intense negative reaction at home and abroad provoked by the U.S. sanctions argues that they struck close to the nerve. **Multilateral deals are highly intricate, potentially involving multifarious second- and third-order relationships in several nations. Extraterritorial controls can therefore have many unanticipated and undesirable consequences as their impact spreads in a ripple-like effect to numerous and varied interested parties.**

Unfortunately, there is no way to measure this kind of impact, even after the fact. Neither is it possible to gauge the magnitude of such effects in advance. One can judge that the indirect negative economic impacts of sanctions are real—and perhaps more important than the direct impacts. It is probably also true that these impacts are not as severe as their harshest critics assert.

POLITICAL IMPACTS

U.S.-ALLIED RELATIONS

It is now commonplace to point out that America's allies in Western Europe and Japan have different notions of the role, importance, and acceptable scope of trade with the Soviet Union than those prevailing in the White House. Many of these differences have crystallized around the issue of the new West Siberian gas pipeline, which is being built largely

with European and Japanese equipment. President Reagan opposed this pipeline, but West Germany, France, and Italy consider importing Siberian gas a desirable way to increase and diversify energy supplies while simultaneously stimulating equipment and technology sales. The West European policies have persisted despite U.S. diplomatic efforts to change them. American critics have tended to view them as shortsighted and dangerous to the cohesion of the alliance. Europeans in turn stress the failure of the United States to appreciate the grounds for their conceptions of national security. They also resent American attempts to dictate matters which they consider to be internal economic policy, and to take major foreign policy steps without consultation.

Public displays of these differences on East-West trade policy have increased markedly during the Reagan administration, culminating with a dispute between the United States and France over the meaning and intent of a declaration on East-West trade signed at the June 1982 Versailles Summit. This dispute was immediately followed by U.S. imposition of extraterritorial, retroactive export controls on oil and gas technology. Through these sanctions, the United States attempted to embargo all oil and gas equipment trade between the U.S.S.R. and foreign subsidiaries and licensees of U.S. firms. When European firms defied U.S. orders, several were then subjected to American export control sanctions. The controls were lifted in November 1982, only after the United States and its allies agreed to conduct a series of multilateral studies concerning trade with the U.S.S.R.

Within the United States itself, informed observers offer markedly different interpretations of the content, timing, and status of the multilateral studies. Given the degree of confusion within the United States, and the residue of recrimination and ill will in Europe, it is reasonable to expect differences among the other participants' perceptions as to the meaning and utility of this exercise. The "worst case" outcome of these studies is not that they will fail to produce new allied policy initiatives on East-West trade. Rather, it is that continued lack of communication and persistent differences will lead to another public display of serious disagreement between the United States and its allies on Soviet trade policy.

Just as the meaning and potential import of the forthcoming studies are debatable, so too is the evaluation of the political costs and benefits which have accrued to the United States in the wake of the sanctions. Some have claimed that American export controls caused a significant incremental delay in completion of the West Siberian pipeline and a consequent loss in hard currency for the Soviets; others are skeptical. Regardless of the actual impact on the pipeline schedule, the effort to disrupt the project raises a disturbing question. **In this case the U.S. Government's evaluation of what is best for West European security differs from that of the West Europeans themselves. Should the United States use its foreign policy controls on exports to the U.S.S.R. as much to inconvenience and modify the policies of its allies as to inconvenience or exact concessions from the Soviet Union? This is arguably a bad precedent for the conduct of U.S. foreign policy in general and for alliance relations in particular.**

In the end, **future allied trade relations with the U.S.S.R. are likely to be shaped more by domestic imperatives in Europe and Japan and worldwide economic forces than they are by U.S. concerns. There is no evidence that allied nations are about to renounce their fundamental beliefs about East-West trade.** To the extent that retrenchment takes place, particularly in granting credits to or buying energy from the U.S.S.R., it will likely in large part be due to the state of the world credit and energy markets.

U.S.-SOVIET RELATIONS

According to the view currently predominant in the administration, the East-West confrontation is an expression of a fundamentally adversarial relationship which is unlikely to be changed in the near future, and certainly unlikely to be relaxed through trade. Indeed, trade with the Soviet Union is no longer seen as in part an opportunity for forging peaceful ties, but rather exclusively as the means by which the West is contributing to the strength—and hence the threat—of a country it has every reason to distrust. In this view Western trade policy toward the U.S.S.R. should also avoid creating situations in which the U.S.S.R. might gain leverage over its trading partners (as in the case of the pipeline). At the same time, it can be used as an effective means of expressing displeasure at Soviet actions in a manner which will inflict harm on the U.S.S.R.'s economy (hence, technology and equipment embargoes).

U.S. policymakers have long tended to characterize the Soviet military sector almost entirely in terms of its strengths, and the Soviet economy almost always in terms of its weaknesses. But despite serious inherent weaknesses the Soviet economic system enjoys many strengths. On the other hand, Western imports have relieved critical shortages, hastened technological progress, and generally improved economic performance. Consequently, **many believe that policies of economic leverage are useful and that the United States can affect the Soviet Union through well-targeted sanctions which exert economic pressure on points of Soviet vulnerability and thereby exact changes in Soviet behavior.** This is a controversial view.

In both *Technology and East-West Trade* and *Technology and Soviet Energy Availability,* OTA found that **trade leverage usually works under very limited conditions, and that past precedents have demonstrated its weakness when used against the Soviet Union.** The aftermath of U.S. attempts to embargo grain and energy equipment exports to the U.S.S.R. dramatically demonstrate the limitations on U.S. power to successfully conduct a trade leverage policy. Although both embargoes were directed at vulnerable areas of the Soviet economy, their results were inconclusive at best. **U.S. sanctions and embargoes may well have hurt the U.S.S.R., but it is unlikely that they have hurt enough to make a real economic difference.**

It has been argued that equivocal economic impacts aside, the political utility of trade sanctions lies as much in the message of U.S. resolve that they convey to the U.S.S.R. as in precipitating measurable changes in Soviet behavior. According to this view, U.S. policies can and should be judged according to their symbolic value. The impact of these symbolic actions has been lessened by two factors, however: **the messages sent to the U.S.S.R. have been unclear; and the U.S.S.R. may itself have benefited from the disruptions in the Western alliance precipitated by U.S. policies.** The gas pipeline sanctions have been variously justified as being designed to:

- protest Soviet responsibility for the declaration of martial law in Poland;
- prevent West European dependence on Soviet gas;
- damage—or at least not aid—general Soviet economic development by inhibiting a project of great economic importance;
- protest the use of "slave labor" in pipeline construction; or
- deny the U.S.S.R. hard currency earnings from gas sales in Europe.

These are very different goals. Yet, if the success of a policy rests on its symbolic message, its impact may be weakened when the message itself is unclear.

The extent of the second problem can only be determined in the context of the value which the U.S.S.R. places on driving wedges between the members of the Western alliance. **If an important Soviet political goal is to generate as much divisiveness as possible among NATO partners, and to encourage the West Europeans and Japanese to depart from U.S. policies on East-West relations, the gas pipeline embargo was arguably a welcome political windfall for the U.S.S.R. A counterargument is that any such damage was superficial, illusory, and/or short-term.** In this view, the West is going through a necessary, albeit painful, reevaluation which will eventually result in a stronger and more unified front vis-à-vis the U.S.S.R. This position in effect defers judgment of the effects of U.S. policies to the indeterminate future.

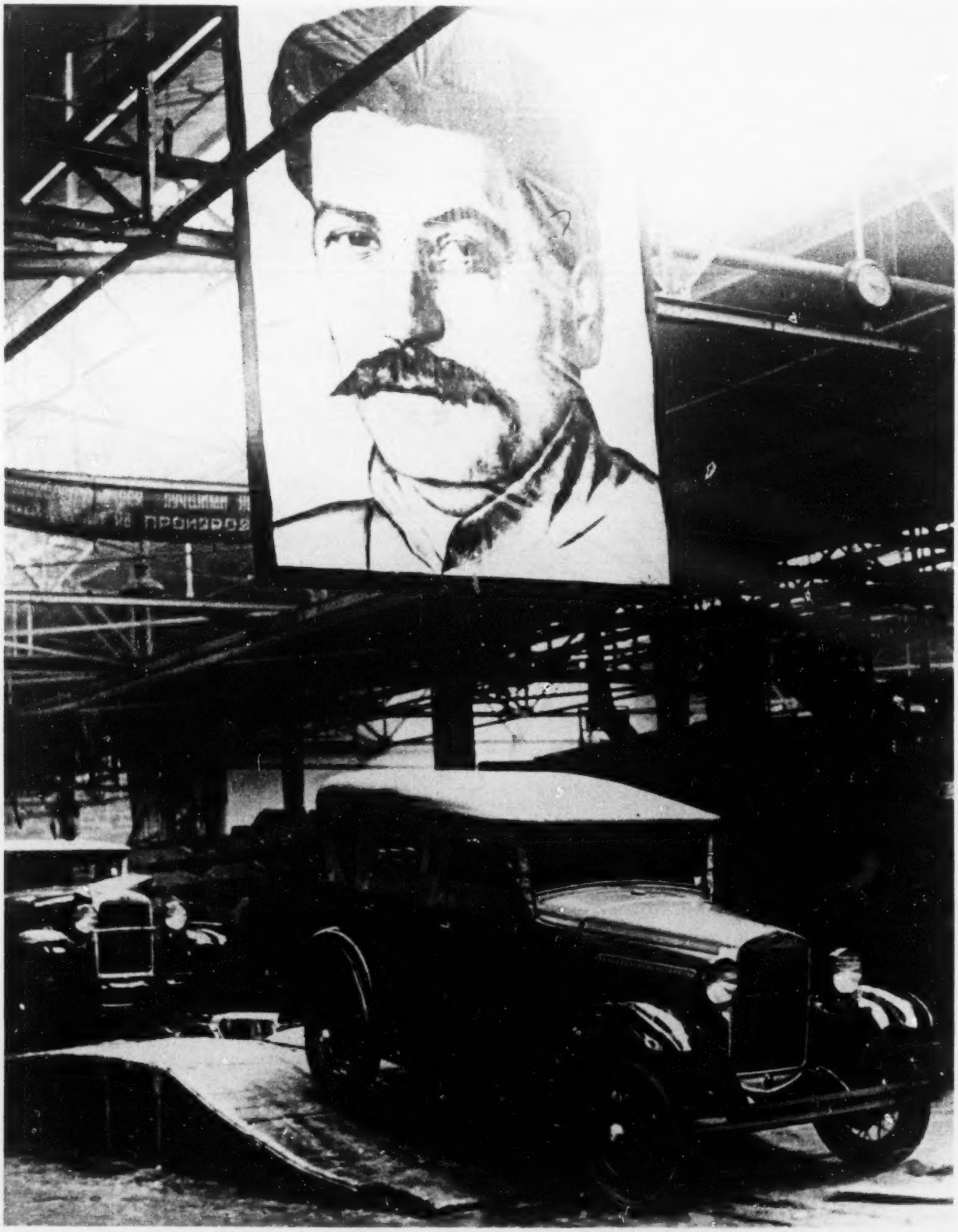

Photo credit: TASS from SOVFOTO

"Model A" Fords roll off the Gorki assembly lines in 1929

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MILITARY IMPACTS

There is no question that the U.S.S.R. has benefited militarily from Western technologies and equipment. In cases where the U.S. Government has expressly permitted the sale of such items to the Soviet Union, it has engaged in actions which injure its own national security. **Recent intelligence analysis has confirmed the fact that the U.S.S.R. is engaged in a massive high-level effort to acquire militarily relevant Western technology, and that it has obtained these technologies by both legal and illegal means.**

Observers of the Soviet economy still disagree over the efficiency of this technology acquisition program, but the significance of its multifaceted nature for U.S. policymakers is that **different transfer mechanisms lend themselves to different legislative and administrative remedies. Unfortunately, in the rhetoric surrounding export control, the distinction between legal and illegal technology transfers is often blurred.** The resulting confusion intensifies the impression that the West is a "sieve," and that the U.S.S.R. is benefiting from a veritable hemorrhage of U.S. technology. This impression is in turn useful in fostering a climate of public opinion supportive of extending controls to a larger array of technologies and products, and reducing American commercial relations with the U.S.S.R. Regardless of the wisdom of such a policy, maintaining a clear distinction between military gains made by the U.S.S.R. through theft and deception, and gains made "legitimately" under U.S. law, is essential to any serious attempt to reform or refine that law so as to minimize future gains.

Thus, any serious attempt to affect militarily relevant U.S. technology flows to the U.S.S.R. must carefully separate the following channels:

I. Legal transfers made possible by the open nature of Western society, e.g., transfers occurring through perusal of open scientific literature, academic exchanges, trade fairs, etc.
II. Legal transfers through purchase of technologies under general license.
III. Legal transfers through purchase of technologies under validated license.
IV. Illegal transfers through purchase, e.g., by agents, through third countries or foreign embassies, dummy corporations, etc.
V. Illegal transfer through industrial espionage or the theft of materials classified by the U.S. Government.

Constraints on technology transfers in category I risk impinging on the free worldwide access to scientific developments, on which scientific advances depend. In addition, American academics are jealous of the prerogatives of academic freedom. U.S. exchange programs with the U.S.S.R. have been characterized by a basic lack of symmetry, but the transfer of information through academic and scientific exchange programs is probably less likely to result in the ability to absorb, diffuse, and improve on a technology than are more active—i.e., commercial—channels. In addition, strong legal and social forces in the United States make this area particularly intractable to well-targeted controls.

Categories IV and V involve illegal actions on the part of the U.S.S.R. or its agents. **There is broad agreement that better enforcement of existing laws and regulations should become an important priority, although opinions differ as to how enforcement efforts should be implemented.** These efforts are complicated by the fact that there are both domestic and foreign aspects to the problem of illegal transfer. The problems of improving enforcement within the United States are relatively tractable compared to those which surround the illegal disposition of American technologies once they leave the country. Here, the United States must rely on the enforcement agencies of other nations, and cooperation has not always been forthcoming. So long as East-West trade policy differences between the United States and its allies persist, no quick or easy solution to this problem can be expected.

Categories II and III contain items which, to the extent that they strengthen the Soviet military, are not adequately protected by U.S. law. Category II raises the issue of identifying those items which should be, but are not, controlled for national security purposes. Agencies charged with export control are faced with the enormous technical task of keeping abreast of rapidly developing technologies in a variety of fields, with a variety of potential military applications. It is the task of the legislator to allocate adequate resources for an administrative framework within which flexible and farsighted evaluation of the direction of technological change in both the civilian and military sectors can take place. This effort will be made more difficult by the fact that important new technologies are now being developed in the civilian, not the military, sector. These may have no known or practical military utility now, but could well have important military applications in the future.

Problems in category III arise from the existing export licensing apparatus, which in theory should adequately identify technologies and products with potential "dual" (i.e., both military and civilian) use, and allay all reasonable doubt that sale of the item in question will not result in a military gain by the U.S.S.R. In practice, export licensing procedures have been the subject of intense criticism. The problem is that while it is relatively easy to identify past licensing decisions that seem to have contributed to Soviet military capabilities, it is not clear that:

- economic or political considerations at the time were not considered by high-level decisionmakers to outweigh the military risks;
- these military applications could have been anticipated at the time;
- denial of a U.S. license would have withheld the technology from the U.S.S.R.; and/or
- any other licensing mechanism would necessarily result in fewer such "mistakes."

The lesson here is that **evaluation of the export licensing process cannot be undertaken in isolation from an understanding of the basic assumptions which guide it.** The technical and logical criteria for including technologies in the export licensing process and the "case law" which provides the grounds for granting licenses in disputed cases together reflect an understanding of **the concept of "military significance," which has been subject to widely varied interpretations, often colored by the prevailing political climate.** Congress has endorsed efforts to develop a means of assessing military risk which rests on objective technological criteria and is therefore relatively immune to shifting political opinion. This effort is predicated on the assumption that one can identify the subset of technologies on which U.S. military technological superiority is most dependent; and that these technologies can be described on a Militarily Critical Technologies List (MCTL), and subjected to stringent export control. **One advantage of producing such a list would be that the items on it could be made immune from attempts to use them as instruments of political leverage. It is difficult, after all, to make a rational case for selling a militarily critical item or process to the U.S.S.R., no matter what the political demands of the moment.**

However, it would be both misleading and unwise to regard the MCTL as a panacea. The existing MCTL has been criticized for being so extensive that it constitutes a "Modern Technologies List," a reflection of the fact that the Department of Defense's view of the scope of military criticality is controversial. On the evidence of the historical precedent for changes in the prevailing interpretation of the concept of military significance, and of the longstanding difficulties surrounding the Critical Technology Exercise, **it is unlikely that controversy in the export licensing community over the boundary between acceptable and nonacceptable military risk will be quickly or permanently laid to rest.**

In sum, there are severe constraints on the power of U.S. export licensing to deny the Soviet Union access to the Western technologies

it most wants. These constraints include the extent to which the Soviets use illegal means to acquire Western technology; lack of allied agreement on a more strenuous multilateral export control policy; the difficulties inherent in identifying in advance which technologies will have important military payoffs; and the increasing worldwide diffusion of technology. **While existing export criteria could certainly be tightened, it is most improbable that even drastic changes in U.S. export control policy could alter the fact that the U.S.S.R. benefits militarily from Western technology.** Moreover, it is rare to find examples of technologies obtained from the West which the U.S.S.R. could not have produced itself, albeit with delays.

Given this situation, it is important that the United States not lose sight of the primary objectives of a realistic export control program. It is successful to the extent that it increases the cost to the U.S.S.R.—in time, money, effort, and efficiency—of obtaining the technologies it desires; and to the extent that the roadblocks it creates limit the rate and volume of Soviet technological acquisitions.

OPTIONS FOR U.S. POLICY

The debate over U.S. export administration policy centers on how to simultaneously pursue and to balance four different objectives. All members of the export licensing community believe to some extent in each of these goals. They differ in their priorities, and in the past, the relative emphasis accorded these elements has shifted. A new or revised Export Administration Act will reflect congressional decisions on how best to accommodate all four which are described below. Table 1 lists some of the major policy options which are available to Congress in furthering these objectives, and identifies the primary thrust of each.

Table 1.—Options for U.S. Policy

	Primary goal			
Option	National security	Foreign policy	Efficiency	Trade promotion
Change the locus of primary export licensing responsibility:				
Create an Office of Strategic Trade	X	X	X	—
Give primary responsibility to the Secretary of Defense	X	—	—	—
Eliminate indexing (i.e., the automatic decontrol of "obsolete" technologies)	X	—	—	—
Broaden the definition of technology to bring more transactions under national security controls	X	—	—	—
Redefine foreign availability criteria:				
Eliminate foreign availability as a reason for granting licenses	X	X	X	—
Make it easier to prove foreign availability	—	—	X	X
Use militarily critical technologies list (MCTL):				
Adopt the existing MCTL	X	—	X	—
Shorten the MCTL	—	—	X	X
Tighten West-West export controls	X	—	—	—
Strengthen CoCom	X	—	—	—
Curtail exchanges and access to open literature	X	—	—	—
Restrict technology sales to foreign embassies	X	—	—	—
Restrict the application of foreign policy controls	—	—	X	X
Decontrol embedded technology	—	—	—	X
Decontrol West-West trade	—	—	X	X
Create a comprehensive operations license	—	—	—	X
Improve enforcement	X	—	X	—

SOURCE: Office of Technology Assessment.

THE NATIONAL SECURITY PERSPECTIVE

Goals

The primary goal of policy options which focus on U.S. national security is to make it as difficult as possible for the Soviet defense establishment to acquire and use Western technology. Proposed legislation is designed to prevent or inhibit the dissemination of equipment and technologies believed to have military utility.

Assumptions

Adherents of this perspective believe that:

- the U.S.S.R. is making important military gains through the acquisition of Western technology;
- tightening U.S. export licensing requirements can make significant inroads into this process;
- the security benefits of such controls outweigh the economic costs of foregone exports; and
- that sustained U.S. pressure can bring America's allies closer to its own position on these matters.

THE FOREIGN POLICY PERSPECTIVE

Goals

The primary goal here is to preserve a situation in which Presidential use of trade as an instrument for achieving political objectives has been as easy and effective as possible. This involves the power to apply controls to items which do not fall under the rubric of national security, and envisages that such controls would be flexible and of limited duration.

Assumptions

Advocates of maintaining broad executive discretion in the use of foreign policy controls believe that:

- the Soviet need for Western imports provides an effective lever for affecting Soviet policy and behavior;
- political intervention in the conduct of international trade is an appropriate mechanism of diplomacy; and/or
- U.S. foreign policy requires a means by which the President can reward or punish Soviet actions where no suitable alternative to manipulation of trade controls exists.

THE EFFICIENCY PERSPECTIVE

Goals

The primary goal here is to allow actual or potential exporters the ability to plan ahead, make long-term commitments, and to acquire the reputation of reliable suppliers. A secondary goal is to encourage compliance and increase the efficiency of the export licensing process. These ends would be achieved by making the export control system more predictable, consistent, and efficient.

Assumptions

This perspective is based on the proposition that, whether its objective is to limit or encourage exports, U.S. policy should be administered in a timely and predictable manner and enforced so as to encourage compliance and achieve the maximum benefit/cost ratio for its policing efforts. It also assumes that such development would allow U.S. companies to invest more sensibly and compete more efficiently in international markets. Holders of this perspective tend to believe that foreign policy controls are highly disruptive of trade but unlikely to cause changes in policies abroad; and that complex licensing procedures place unnecessary burdens on U.S. businessmen and taxpayers which could be avoided by adherence to a clear and consistent policy.

THE TRADE PROMOTION PERSPECTIVE

Goals

The primary goal of the trade promotion perspective is to enable U.S. companies to compete effectively in selling the widest possible variety of civilian goods and technologies anywhere in the world. Therefore, controls should be tightly limited in scope and administered in a consistent and predictable manner.

Assumptions

The trade promotion perspective rests on various combinations of some or all of three basic lines of reasoning. First, the United States does not have a worldwide technological monopoly; and since our allies are unlikely to change their own export promotion policies, which protect only clearly military items, U.S. efforts to deny the U.S.S.R. many products and technologies are destined to fail. Second, foreign policy controls nearly always fail to alter the behavior of those against whom they are directed. Moreover, because they are by nature unpredictable, these controls are highly disruptive. Third, export controls are costly to the United States and should be used to the minimum extent necessary. This view is based on the perceptions that because the United States is and must remain part of a world market, a healthy export sector is increasingly important; and that export controls beyond those obviously necessary for national security purposes reduce U.S. firms' ability to compete for sales.

COMBINING THE PERSPECTIVES

In some cases, these policy orientations are mutually supportive. It is consistent, for instance, to sponsor both provisions which strengthen national security controls and those which promote flexibility for imposing foreign policy controls on trade. In others, they are inherently at odds. An obvious case is the national security and export promotion perspectives, but there are others. For example, the very existence of foreign policy controls introduces an element of unpredictability into the export licensing system, which works against both efficiency and trade promotion. Renewal of the Export Administration Act may well lead to legislation that addresses some or all of these perspectives. It is possible that Congress will make difficult choices and select among consistent measures. If it does not, it risks leaving export administration in much the same state as at present. Implementation of the 1979 EAA has been complicated by the fact that inconsistencies of this sort were built into it. If this situation continues, controversies will once again be transferred for the legislative to the executive arena and resolved by Presidential decisions or administrative action.

CHAPTER II

The Export Administration Act of 1979

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CHAPTER II

The Export Administration Act of 1979

A detailed account of the history of U.S. export control from 1949 to 1979 can be found in chapter VII of *Technology and East-West Trade*. This account reveals two related themes. The first is the continued tension between the forces urging export control versus export promotion. The second is the clear change in the relative weight accorded these factors by Congress, a change manifested by the passage of the first Export Administration Act in 1969. The 1969 law reflected congressional adoption of the view that East-West trade restraints should be loosened. Nevertheless, the perpetuation of the two divergent positions has continued to shape U.S. export control policy, and both can find expression in the Export Administration Act of 1979 (EAA). This chapter reviews the major provisions of the current legislation and identifies the controversies which have grown up around its interpretation.

FORERUNNERS TO THE 1979 EXPORT ADMINISTRATION ACT

Before 1949, U.S. efforts to control exports on the grounds of national security had been largely confined to times of war or national emergency. The Export Control Act of 1949, passed in the early stages of the Cold War, marked the inception of two important policies: the imposition of export controls on a regular and continuing basis during peacetime; and the legislative expression of the thesis that nonmilitary trade with potential adversaries could adversely affect U.S. security. Under this policy, the economic advantages to the United States of unfettered foreign trade were clearly subordinated to the perceived security dangers of commercial intercourse with the Communist world; and the broad language of the act allowed the control of exports of primarily economic (as opposed to military) significance to the purchaser.

In 1969, a long process of pressure for the abandonment of this policy, much of it from the business community and much of it reflecting the goals of detente, reached its climax with the passage of an Export Administration Act. One expression of the new spirit of the law was the change in its title. This act implicitly treated the ability to export as a right to be infringed only under explicit limited circumstances, and all language implying that trade restrictions might be used to promote economic warfare was deleted. The act now attempted to reconcile an encouragement of trade with the East with the maintenance of U.S. military security. Thus, the dual but often contrary tendencies in export control policy remained; the weight and the presumption, however, had shifted in the spirit of detente to the side of liberalizing exports to the East.

Major amendments to the 1969 act were enacted three times—in 1972, 1974, and 1977. Each time, the debate between the demands for increased ease of export and increased control in the name of national security was revived. Each time some provisions to strengthen export controls were included, but the prevailing opinion weighed largely in favor of modest facilitation of East-West trade. The debate which preceded the passage of the 1979 EAA, however, reflected both disenchantment with detente and an intensified concern with the security implications of trade with the Communist world, and a major effort on the part of the business community to remove constraints on nonmilitary trade. The resulting legislation embodies both concerns, although its findings and declaration of policy clearly lean in the direction of easing the difficulties attendant on conducting East-West trade.

The law assumes that the freedom to export is a basic and important right which should be abridged only under specific circumstances and then only in a clearly delineated manner. At the same time, EAA grants the Executive sweeping powers to define these circumstances. The Executive power is offset primarily by nonbinding provisions designed to deter its use. Herein lies an inherent ambiguity in the law and the root of much of the controversy surrounding its administration. When an emergency situation produces a national consensus on the propriety and utility of instituting export controls, differences between the basic intentions of the EAA framers and the manner of its implementation do not arise. However, under less drastic circumstances where the President and Congress may disagree as to whether export controls are appropriate or effective, the provisions of EAA tend to magnify any basic policy differences between the law's spirit and its execution. In sum, because EAA assumes Executive self-restraint, it is most vulnerable to criticism when that restraint is foregone. This point can be further illuminated through a brief survey of the major provisions of the act.

PROVISIONS OF THE 1979 EXPORT ADMINISTRATION ACT

The major provisions of the 1979 EAA can be summarized as follows:

- The findings and declaration of policy of the act both stress the importance of exports to the U.S. economy and thereby to the national security and well-being of the country. It is deemed the policy of the United States to minimize uncertainty in export controls; to apply such controls only after full consideration of their economic impacts; and only to the extent necessary to protect national security, further significant foreign policy goals, or protect the domestic economy in cases of short supply.
- EAA separates the criteria and procedures of controls enacted for national security from those instituted for foreign policy reasons. The former are to be applied only to the extent necessary to restrict exports which make a significant contribution to the military potential of another country which would prove detrimental to the national security of the United States. The latter are to be used only where necessary to significantly further the foreign policy of the United States or to fulfill its international obligations.
- A number of provisions are designed to make the export licensing process more accountable to the public, quicker, more efficient, and less inclusive. Among these are the following:
  - —The establishment of Qualified General Licenses which authorize multiple exports to the Soviet Union, Eastern Europe, and China.
  - —Language strengthening the requirements that the business community be fully apprised of changes in export control policy; that their views on this policy be solicited regularly by the Secretary of Commerce; and that license applicants be informed of the progress of their application and the reasons for denial.
  - —The establishment of action deadlines for referral of applications in the event of interagency review.
  - —The inclusion of an indexing provision which would allow for the periodic de-

control of goods and technologies which can be considered "obsolete" relative to annual increases in performance levels of new technologies.
- —The detailed specification of procedures for establishing an ongoing capability within the Department of Commerce (DOC) to collect and disseminate information on foreign availability of goods and technologies comparable to those sold by U.S. firms.

- The stipulation that validated licenses may not be required in cases where foreign availability has been demonstrated, unless this provision is specifically waived by the President. In the latter case, the Secretary of Commerce must publish the grounds and estimated economic impact of the waiver.
- The President is given total discretion in deciding to apply foreign policy controls, but the act clearly intends to inhibit this power by providing detailed guidance on the factors to be considered and steps taken in his decision. Although no congressional veto over foreign policy controls other than those on agricultural commodities was included in the act, it provides that affected industries be consulted and Congress be notified before the imposition of restrictions; and it enjoins the President to consider alternative actions and the following criteria before instituting the controls:
  - —the probability that the controls will achieve the intended purpose;
  - —the compatibility of the controls with other U.S. foreign policy objectives;
  - —the reaction of other countries;
  - —the likely impact on the U.S. economy;
  - —the ability of the United States to enforce the controls; and
  - —the foreign policy consequences of not imposing the controls.
- Authorization, but not funding, is provided for U.S. participation in CoCom, and the President is enjoined to enter into negotiations with other CoCom governments with a view to reaching agreement on publication of the CoCom export control list; establishment of periodic high-level meetings; reduction of the CoCom list to a mutually acceptable and enforceable level; and enhancement of foreign enforcement activities.
- The role and powers of the Secretary of Defense in export licensing are delineated, and he is charged with primary responsibility for developing a Militarily Critical Technologies List (MCTL), which will be incorporated into the Commodity Control List. The Secretary of Defense is also given the right to review all license applications to countries for which exports are controlled for national security purposes.

On balance, these provisions tend to ease rather than restrict the ability of U.S. firms to export to the Communist world. But the overall effect of the law has not been export promotion. Indeed, the period since the passage of EAA has seen a marked contraction of U.S. trade with the Communist world (see ch. V). This is in large part due to the application of foreign policy controls after the Soviet invasion of Afghanistan and the declaration of martial law in Poland, but it also reflects a widening of the criteria for the exercise of national security controls.

Soviet actions have been strongly condemned in the United States, but there has been disagreement over the extent to which export control constituted a proper or effective arena for the American response. The fact that such measures are perceived by many in business and in Congress as being at odds with the intent of Congress in enacting EAA is a reflection of the ambiguity embodied in the legislation. It should hardly be surprising that such legislation is interpreted differently by different parties, or that those empowered to execute the law will do so in a manner consistent with their own policies.

AMBIGUITY IN THE 1979 EXPORT ADMINISTRATION ACT

The controversies which have arisen on the administration of the 1979 EAA stem from several different sources. First, the language of export control has always included broad terms which lend themselves to varying interpretations. The discussion in chapter VI over the meaning of the term "military significance" reflects this problem.

Second, the Export Administration Act involves concepts, such as extraterritoriality, which have rarely been fully invoked. This provision has traditionally been used to control reexport of U.S. technology. The expansion of this power to cover all goods and equipment produced by subsidiaries and licensees of U.S. firms has engendered surprise and alarm in the U.S. and international business communities, anger in allied governments, and extensive legal debate. (See chs. IV and V.)

Third, the law provided guidelines for Presidential actions without imposing real controls on those actions. Congress has, in fact, relied on Executive self-restraint to fulfill its intent. The result has been the administration's paying only lip service to legislative provisions in cases where these might inhibit desired policy actions. Thus, in the case of the West Siberian gas pipeline equipment embargo, the administration has been accused of only perfunctory compliance with the stipulations regarding the imposition of foreign policy controls, including failure to seriously consider circumstances likely to affect the outcome of the controls, and failure to adequately notify Congress of the intent to impose the embargo. (See chs. III, IV, and V for further discussion of this case.)

Fourth, EAA does not and was not intended to frame a totally inclusive and comprehensive East-West trade policy. There are issues—export credit, for example—central to such a policy which are outside the traditional jurisdiction of EAA. (See the appendix to this document.) Other issues, i.e., control of scientific and technical publications and U.S. policy regarding academic and scientific exchanges, involve delicate constitutional and domestic policy issues and are extremely intractable to clarification in the context of an export control law. (See ch. VI.)

Fifth, important areas of U.S. export control policy involve multilateral issues, particularly the role and status of CoCom. This subject has been resistant to legislation due to the informal and consensual character of CoCom and the political sensitivity of its activities for some European nations. Issues involving consultation with, and the cooperation of, U.S. allies are areas in which Congress seems to have limited influence. (See ch. V.)

Finally, EAA authorizes activities—the establishment of ongoing foreign availability capabilities and the MCTL, for example—which are complex and controversial enterprises. There have been substantial disagreements within the Government over the form these activities should take and the way their results should be utilized. The net effect is that few concrete results have yet been seen in either area, albeit for different reasons. The MCTL is discussed at length in chapter VI and foreign availability in chapter VII. Here, it is appropriate to note that it is unlikely that either concept will form a useful part of the export administration process in the near future.

SUMMARY AND CONCLUSIONS

It has been nearly 4 years since the passage of the 1979 EAA, and the intervening time has seen numerous controversies over the execution of specific provisions, and more generally, over the intent of its framers. Much of this controversy is the familiar expression of the dichotomy of views which has characterized U.S. export control policy since its inception. But if the arguments presented and the interests involved on each side seem largely the same, there has been one change of great significance: the stakes are now higher for all parties. Worldwide recession and the state of the domestic economy have made the encouragement of exports, the maintenance of established trading relationships, and the development of new export markets of critical importance to the United States as well as to Europe and Japan. Meanwhile, evidence of the extent and nature of the Soviet military buildup, coupled with Soviet aggression in Afghanistan and events in Poland, have intensified awareness of the importance of safeguarding U.S. national security through protecting technological leads. Ironically, it has become simultaneously more important to sell to and to withhold U.S. goods from the Communist world. It will be the difficult task of those drafting the next Export Administration Act to craft a policy which addresses both of these needs without being so dualistic as to further neither.

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Implementation of the Export Administration Act of 1979

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CHAPTER III

Implementation of the Export Administration Act of 1979

The Export Administration Act (EAA) of 1979 has governed U.S. export control policy toward the Soviet Union under two different Presidents. Its implementation has of course been influenced by the general foreign policy stances of these administrations. But it has also been shaped in important ways by a series of events which have contributed to a fundamental reassessment of trade with the Soviet bloc.

Even before the December 1979 invasion of Afghanistan, the Carter administration had begun to express disillusionment with the detente-era view that trade with the West would moderate Soviet behavior. In 1978, for instance, export controls were placed on some U.S. oil and gas equipment as a response to Soviet treatment of dissidents. In the wake of the invasion, President Carter tightened the criteria for licensing equipment and technology exports to the U.S.S.R. and imposed embargoes on grain and other commodities. Thus, the Reagan Presidency began during a period of markedly cooler trade relations with the Soviet bloc. These relations further deteriorated with the declaration of martial law in Poland and in response to the Reagan administration's strong anti-Communist views.

This chapter presents a detailed account of events related to U.S. policy on exports to the U.S.S.R. from December 1979 through the spring of 1983. Two basic themes emerge: the use of export controls as instruments of U.S. foreign policy; and a focus on the importance of strengthening national security controls. The former development seems to have stemmed from the perception that other foreign policy instruments were either insufficiently forceful (diplomatic demarches, cancellation of academic and scientific exchanges) or unsuitable (military responses), and the belief that withholding U.S. exports can inflict real economic damage on the U.S.S.R. The latter trend first emerged under President Carter, but it particularly reflects the Reagan administration's concern over the magnitude of the Soviet military threat and the degree to which that threat has been enhanced by the acquisition of U.S. and other Western technology.

The developments discussed in this chapter focus first on these two themes. In addition, the chapter chronicles changes in licensing and enforcement procedures and describes the reactions of Congress and U.S. allies to these events.

FOREIGN POLICY CONTROLS

GRAIN

Background

The agricultural, and particularly the grain, sectors of the United States and the Soviet Union exhibit a high degree of complementarity. A net exporter until the early 1960's, the Soviet Union has since periodically imported large quantities of grain for the livestock feed needed to fulfill plans to increase meat consumption. The United States, in turn, has followed an export-oriented agricultural strategy to dispose of large production increases. A major grain exporter during the 1960's, the United States exported more than half its wheat crop, 30 to 40 percent of its corn, and 50 percent of its soybean crop by the early 1980's. Agricultural commodities have accounted for about three-quarters of U.S.-Soviet trade in recent years.

During the 1970's, the United States was clearly the U.S.S.R.'s preferred agricultural supplier. American farmers were able to sell to the U.S.S.R. the large quantities necessary to simplify purchasing and shipping arrangements. But from the American point of view, the Soviet Union was an unpredictable customer, purchasing large amounts in some years, and little in others. Following unexpectedly large Soviet grain purchases in 1972, which have been called "the great grain robbery," and again in 1975, which led the Ford administration to impose a temporary moratorium on grain sales to the Soviet Union, the United States and U.S.S.R. concluded a 5-year grain supply agreement. Beginning in October 1976, the agreement provided for minimum Soviet purchases of 6 million metric tons (MMT) of wheat and corn in approximately equal proportions each year, unless U.S. grain availability fell below a certain level. Purchases beyond 8 MMT could be made after consultation with the U.S. Government. The United States pledged not to apply export controls to the first 8 MMT of grain exports. During the first year of the agreement, the Soviets purchased the minimum amount; during the second and third years their imports were much larger. In calendar year 1979, sales to the U.S.S.R. accounted for 15 and 20 percent, respectively, of U.S. exports of wheat and feed grains.

The Carter Embargo[1]

The partial grain embargo was the centerpiece of the Carter administration's Afghanistan sanctions. Unlike the other sanctions imposed at this time, those on wheat and corn were justified on both national security and foreign policy grounds. The President presumably took this step because EAA provides for a congressional veto of restrictions on agricultural commodities when these are applied for reasons of foreign policy or short supply. The United States had agreed to sell the Soviet Union up to 25 MMT of wheat and corn between October 1979 and September 1980, the fourth year of the grain agreement. Under the sanctions, the United States would make available only 8 MMT.

This embargo was aimed at the feed grain-livestock complex, one of the most vulnerable sectors of the Soviet economy, and the administration expected it to have a significant impact on the Soviet Union. This belief was based on the fact that the Soviet Union's 1979 harvest had been poor, and the belief that export prospects of other grain-producing countries were less favorable than usual. Thus, the resulting import shortfall would begin to be felt before the U.S.S.R. harvested its 1980 winter wheat crop and before grain from the Southern Hemisphere became available. Agricultural experts outside the administration disagreed with this forecast, believing that the fungibility of grain, the diverse channels through which it is traded, and the availability of alternative suppliers would make grain difficult to embargo.

The administration recognized the critical importance of securing international support for the embargo, despite the strong U.S. market position: U.S. shares of world markets for corn and soybeans were 75 and 80 percent, respectively; in addition, the United States supplied 40 percent of all the wheat traded on international markets. On U.S. initiative, consultations were held in January 1980 with the other major grain-exporting countries (Canada, Australia, members of the European Economic Community (EEC), and Argentina) and with the other major exporters of soybeans (Argentina and Brazil). With the exception of Argentina, the wheat-exporting countries pledged not to directly or indirectly replace the embargoed grain. In practice, the other participants appeared to view this agreement as a commitment not to sell more than "normal" or "traditional" amounts of grain to the Soviet Union. According to administration spokesmen, the agreement was for an indefinite period. Argentina declared its refusal to "participate in economic sanctions" or to control sales by destination on the grounds that it lacked a legal mechanism to control sales by private traders. Argentina did, however, declare that it did not intend to take commercial advantage of the embargo or to "seek to alter artificially the current demands of the different markets." Argentina's equivocal position threatened the effectiveness of the embargo since its grain crop was uncommitted and would not be available until May. Subsequent efforts by the Carter administration to secure Argentine cooperation failed. On the issue of soybeans, Brazil took a position similar to Argentina's.

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[1] This and the following section are based on U.S. Congress, House Committee on Foreign Affairs, Subcommittee on Europe and the Middle East, *An Assessment of the Afghanistan Sanctions: Implications for Trade and Diplomacy in the 1980's* (Washington: U.S. Government Printing Office, 1981), pp. 23-52.

From late spring the grain embargo came under increasing criticism, and events in the United States and abroad threatened to undermine it. First, the U.S. Government decided to honor its commitment to sell the Soviets 8 MMT of grain during the fifth and final year of the grain agreement. Moreover, in a controversial move, the administration decided in June 1980 to release U.S. grain-trading companies from their pledge not to sell non-U.S. grain through their foreign affiliates. Farmers and some Members of Congress viewed the latter decision as an unfair easing of the embargo. Critics also charged that the embargo was having a greater impact on the United States than on the Soviet Union. The U.S. Department of Agriculture's (USDA) statistics confirmed that the Soviet Union was obtaining significantly more grain than the administration had initially forecast, and the potential effect of the embargo on America's own farm sector seemed significant. The record 1979 grain harvest and increases in the prices of machinery and inputs had led to preembargo forecasts of a 20-percent decline in 1980 farm income. USDA estimated that the loss of 17 MMT of grain exports would reduce farm income by an additional $3 billion in 1980. No offsetting benefits to U.S. consumers were foreseen; the embargo was not expected to cause a significant decline in food prices.

Therefore, the Government introduced price support measures which included:

- incentives to farmers to place more grain in the farmer-owned grain reserve, thus siphoning it off the market;
- changes in the eligibility requirements for the grain reserve program, which allowed previously ineligible farmers to use the program on a limited basis;
- temporary assumption by the Commodity Credit Corporation (CCC) of exporters' contracts;
- purchases by CCC of certain agricultural commodities, including 4 MMT of embargoed wheat;
- export promotion, including increases in CCC export credit and guarantee programs and the conclusion of grain supply agreements with China and Mexico; and
- incentives for alcohol fuels production.

According to initial official estimates, price supports would add $2 billion to $3 billion to the Federal budget for fiscal years 1980 and 1981. Some private sector estimates were higher—as much as $4 billion to $5 billion.

In response to pressure from the farm sector, Members of Congress of both parties and in both Houses introduced legislation to rescind the embargo. The key test of congressional opinion came on an amendment to an appropriations bill prohibiting the responsible agencies from using funds to carry out or enforce the embargo. The House rejected the amendment but the Senate approved it by voice vote. The amendment was deleted in conference after the 1980 Presidential election.

The embargo was a major Presidential campaign issue, with Ronald Reagan charging that the policy had failed. President Carter continued to hold that the United States had caused the Soviets a shortage of 10 to 11 MMT of grain, and pledged to continue the embargo until the Soviets made a "tangible and demonstrable" move to end the occupation of Afghanistan.

Overseas, support for U.S. policy was waning. In November 1980 the Canadian Government announced that it would no longer impose limitations on grain sales to the Soviet Union, but pledged, nonetheless, not to replace grain embargoed by the United States. The Canadians also pledged that their sales would not be higher than they would have been in the absence of a U.S. embargo. Canada was reportedly acting here on the belief that limiting grain sales had harmed its own farm sector; and out of displeasure with the U.S. policy of promoting grain sales to China. China had been a steady customer for Canadian grain since 1970. Australia, another traditional supplier of grain to China, was also reported to be displeased with the U.S.-China grain agreement. Despite French efforts to end the Common Market support for the embargo, the European Economic Community (EEC) agreed to hold sales to the previous year's level (1.7 MMT).

The End of the Embargo

In light of candidate Reagan's opposition to the grain embargo, most observers expected him to lift controls on grain exports soon after taking office. The issue, however, proved to be difficult and controversial within the Reagan administration. The press reported that Agriculture Secretary Block was urging an end to the embargo, while Secretary of State Haig favored its retention.

Those who wished to lift the embargo argued that it was ineffective, and that it harmed the U.S. farm sector more than the Soviet Union. Their opponents rejoined that the sanctions were having an impact on the Soviet Union and that the impact on the United States had been overestimated. They argued that the embargo would become more effective in 1981, having only been in effect for half of the 1980/81 crop year, during which the United States had sold the Soviet Union a total of 15 MMT of grain. They also pointed out that the Soviet Union had recently experienced its second consecutive poor harvest and had drawn down grain stocks in response to the embargo. Most importantly, the timing was bad. Soviet troops remained in Afghanistan and were poised on the Polish border. Lifting the embargo would send the U.S.S.R. the wrong signal.

Despite these arguments, the President lifted the sanctions on agricultural commodities and phosphates (see next section) on April 24, 1981. Attempts by some Members of Congress to reinstate the embargo through an amendment to the Export Administration Amendments Act of 1981 were rejected in committee.

Impact of the Embargo on the United States and the Soviet Union

Assessment of the relative costs and benefits of the grain embargo remains a controversial issue, largely because of lack of agreement on the appropriate criteria for measuring its impacts. For example, some critics of the embargo argued that it failed because Soviet forces remained in Afghanistan. Others maintained that this was an unfair test as it was unrealistic to expect U.S. trade sanctions to force a Soviet withdrawal. President Carter himself appeared to take the latter view, emphasizing the use of trade controls as signals of U.S. disapproval designed to deter future Afghanistans. Alternatively, both critics and supporters of the embargo have focused on the degree of punishment inflicted on the Soviet Union as keys to its success or failure. In this view, the most important measurements are the gap between intended and actual imports by the Soviet Union, Soviet meat production, and livestock inventories. No unambiguous analyses of these have yet appeared, and experts continue to disagree on the costs to the U.S.S.R. of U.S. actions. The issue of the impact of the grain embargo on the U.S. economy is discussed in chapter IV.

Post-Embargo Policy on Grain Sales to the Soviet Union

After lifting the embargo, the Reagan administration had the options of authorizing above-agreement sales of grain for the remainder of the existing 5-year agreement, due to expire on September 30, 1981, and of renegotiating a new agreement. At this time, the administration was moving towards a policy of normalized grain trade with the U.S.S.R., and offered to sell the Soviets an additional 3 MMT of wheat and 3 MMT of corn over the 8 MMT of grain already authorized for the remainder of the agreement. The administration also began to prepare a negotiating position on a new long-term grain agreement (LTA). Apparently because there was insufficient time for a full-scale renegotiation, both countries agreed to extend the existing agreement for a sixth year, through September 30, 1982. The administration immediately offered to sell the Soviet Union up to 23 MMT of grain during this year.

The declaration of martial law in Poland effectively postponed negotiations on a new LTA. But although the President left open the possibility of additional sanctions, on January 27, 1982, administration officials told Congress that another grain embargo had been rejected because the Soviets could obtain grain from other sources. This position was reaffirmed in March when the President stated that there would be no embargo on agricultural commodities "except in extreme situations and as part of a broader embargo." The President had previously expressed the opinion that equity required an embargo on all exports, not just agricultural commodities. The Agriculture and Food Act of 1981, which would have required expensive compensation for farmers in the event of a selective embargo on agricultural commodities, may have contributed to this decision (see below).

But to the dismay of farmers and grain traders, President Reagan ruled out a new LTA on the grounds that "[t]he Soviets should not be afforded the additional security of a new long-term grain agreement as long as repression continues in Poland." On the other hand, Reagan also instituted efforts to regain the U.S. share of the Soviet market lost following the embargo. On July 30, 1982, the President announced that he had authorized negotiations on a 1-year extension of the agreement for larger sales. He reiterated the administration's position that grain sales have little impact on Soviet military and industrial capabilities, and that they absorb hard currency that the Soviets might otherwise spend on technology to improve their military and industrial capabilities. Thus, in a speech to the National Association of Corn Growers in August 1982, President Reagan stated that the embargo was still hurting U.S. farmers, that grain prices were still low, and that the United States had lost a significant share of the Soviet market. Having stated that "we must restore confidence in U.S. reliability as a supplier," he authorized U.S. negotiators to offer the Soviet Union 23 MMT of grain during the seventh year of the agreement. The embargo protection covering the first 8 MMT would apply to the whole amount, if the Soviets contracted for it in November and took delivery within 180 days. The U.S.S.R. declined this offer. It has apparently decided to wean itself as much as possible from dependence on American agricultural goods. In another effort to halt or reverse the erosion of the Soviet grain market and to reaffirm America's reliability as a supplier, on April 22, 1983 Reagan announced an end to the ban on negotiations for an LTA.

As will become clear in the next section, the Reagan administration has adopted differing policies on grain and on technology and equipment sales to the U.S.S.R.: it declines to embargo the former, while attempting to prohibit both U.S. and foreign companies from engaging in the latter. These policies have been controversial in the United States and abroad. Domestic critics have argued that withholding grain is the best leverage the United States has over the Soviet Union. First, American grain is difficult and expensive to replace in comparable quantities. Second, some argue that grain is a strategic good since it is vital to the Soviet economy. The ability to import it allows the Soviet Union to avoid agricultural reforms and to focus resources instead on industrial and military development. Europeans have charged that U.S. policies are hypocritical and unfair. In their view, the Government bowed to domestic pressures to lift sanctions on the one export in which the United States dominated the Soviet market; at the same time, however, U.S. officials continually call for allied restraint on sales of the items in which Europe and Japan have a greater economic stake. It could be argued that this seeming contradiction in U.S. policy has given the Europeans an additional justification for declining to endorse American views on East-West trade. This subject is discussed further in chapter V.

OIL AND GAS EQUIPMENT AND TECHNOLOGY

Background

The Soviet energy sector has long been considered an appropriate target for U.S. export controls, both because of its importance to the Soviet economy and because the strength of the American oil and gas industries has traditionally made the United States a preferred—if not sole—supplier of energy equipment and technology sought by the U.S.S.R. When in 1977 the Central Intelligence Agency projected that Soviet oil production would peak and sharply decline by the mid-1980's, proponents of trade leverage or linkage identified numerous items of American oil equipment and technology, the denial of which purportedly would have a serious impact on the Soviet oil industry. These items ranged from blowout preventers and drill bits to sophisticated seismic equipment. (See *Technology and Soviet Energy Availability* for an evaluation of this claim.) The predicted collapse of Soviet oil production has not of course materialized. Meanwhile, the focus of attention has shifted from oil to gas, and particularly to the West Siberian gas pipeline project. This pipeline, which is being built almost entirely with West European credits and equipment, is destined to furnish significantly increased amounts of Soviet gas to West Germany, France, Italy, and other European nations.

From its inception, the idea of a West Siberian pipeline aroused the concern of many Members of Congress. Their anxieties centered on the potential dangers of West European dependence on Soviet gas and the opportunities provided by the pipeline for Soviet hard currency earnings. The Reagan administration has shared these concerns, and has attempted to dissuade the West European partners to the pipeline from participating in the project. These attempts have failed for several reasons:

- U.S. efforts to stop the pipeline began in earnest well after the West Europeans had committed themselves to its construction.
- An important motive for the pipeline was diversification of energy supplies to lessen European dependence on OPEC oil. U.S. suggestions for alternatives to Soviet gas (e.g., American coal and Norwegian gas) were considered either impractical or unacceptable in Europe.
- The prospect of equipment sales was at least as important to the West Europeans as the gas purchases. The West German steel industry, for example, has a large stake in the pipeline.
- The West Europeans have a different evaluation of the costs, benefits, and risks of engaging in such a cooperative effort with the U.S.S.R. (see ch. V).

U.S. ability to unilaterally affect the construction of the pipeline has been limited by the fact that it is not the sole or even the preeminent producer of much of the Western equipment being used on the project. The United States, for instance, does not produce the large diameter steel pipe which constitutes the U.S.S.R.'s largest single energy-related import requirement. Two kinds of American equipment are relevant to the pipeline, however: pipelaying machinery and blades for the 25-megawatt turbine used in the gas compressor stations. These items, as well as many pieces of oil industry equipment, have been denied the U.S.S.R. in the trade sanctions policy described below.

The Embargo: Phase One[2]

Declaring that the Soviet Union bore a "heavy and direct responsibility" for the imposition of martial law in Poland, President Reagan announced on December 29, 1981 that exports of equipment for the transmission and refinement of oil and gas would require validated licenses. Since the issuance of such licenses for the U.S.S.R. was halted, this was tantamount to an embargo of the export of all U.S. oil and gas technology and equipment to the Soviet Union. Among the licenses affected by this action was one that had been pending for Caterpiliar Tractor Co. to export 200 pipelayers, for use in gas pipelines.[3]

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[2] See Library of Congress, Congressional Research Service, Office of Senior Specialists, *Soviet Gas Pipeline: U.S. Options*, Issue Brief # IB82020, Jan. 20, 1983, (prepared by John P. Hardt and Donna L. Gold); and U.S. Congress, House Commit-

This embargo did not simply affect items shipped directly from the United States. It also applied to U.S.-origin equipment and technology abroad. Foreign subsidiaries and licensees of U.S. firms were allowed to conduct oil and gas-related business with the U.S.S.R. only under the conditions that their exports: 1) did not contain any U.S.-manufactured components; 2) did not contain any U.S.-origin material; and 3) were not manufactured using U.S. technology exported to the subsidiary or licensee after August 1, 1978. Thus, the British, Italian, French, and West German firms which had contracted to supply the U.S.S.R. with gas turbines for the West Siberian pipeline were prohibited from using General Electric rotors and blades in their machinery.

The Embargo: Phase Two

As of June 22, 1982, the U.S. Government materially escalated this situation by extending the oil and gas equipment embargo to overseas subsidiaries and licensees of U.S. firms. In other words, foreign subsidiaries of U.S. companies were prohibited from exporting oil and gas equipment to the U.S.S.R., regardless of whether the equipment contained U.S.-origin components or material, or had been produced with U.S. technology. The controls were also applied retroactively, i.e., to contracts which had already been concluded and for which licenses had been granted.

European reaction to these controls was vociferous. Four days after their imposition, EEC foreign ministers declared them in violation of international law and in August, EEC issued a formal protest. Meanwhile, the French Government officially ordered the affected French companies to defy the ban and honor their contracts. The British Government followed suit, and the Italian Foreign Ministry publicly announced that Italian contracts with the U.S.S.R. would be honored.

The first firm to export pipeline equipment to the Soviet Union in defiance of the United States was Dresser France, which shipped three compressors on August 26. The U.S. Department of Commerce (DOC) immediately placed a temporary order on it and on Creusot-Loire, a nationalized French company, denying them the right to import or use any U.S. goods, services, or technology. For Dresser the form of this ban was softened in early September (apparently after the intercession of the Secretaries of State, Commerce, and the Treasury) to cover only U.S. goods and technical data for oil and gas exploration, production, transmission, or refinement. Firms in Italy, Britain, and West Germany were placed under the revised and more limited denial order; however, the ban on Creusot-Loire was not modified to bring it in line with the sanctions on other firms until late October. All sanctions on European firms were lifted on November 13, under the circumstances described in chapter V.

Although both sets of sanctions were ostensibly undertaken in direct response to the situation in Poland, the Reagan administration has also justified them in terms of their effect on the construction of the West Siberian pipeline. Regardless of whether the pipeline was the direct or only a secondary target of the controls, the ensuing debate over the administration's policy centered largely on the

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tee on Science and Technology, Subcommittee on Investigations and Oversight, *American Technology Transfer and Soviet Energy Planning*, hearings, 97th Cong., 1st sess., Dec. 10, 1981 and Feb. 9, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982).

[3] The Japanese firm Komatsu, which makes a similar machine, has since shipped pipelayers to the U.S.S.R. and obtained contracts for future deliveries. A discussion of the economic impact on the United States of this and other aspects of the oil and gas embargoes follows in ch. IV.

wisdom and utility of attempting to stop or delay this project. As might be expected, the imposition of the second phase of what came to be known as "the pipeline embargo" engendered a great deal of controversy in Congress and outrage in Europe and in the U.S. business community. In the House of Representatives, legislation was introduced to repeal the expanded oil and gas sanctions. In the Senate, hearings on the pipeline sanctions were held in March, July, and August 1982 before the Subcommittee on International Economic Policy of the Committee on Foreign Relations. Witnesses included administration officials as well as economists, lawyers, and businessmen. The latter group generally decried the sanctions, contending that they would have minimal impact on the U.S.S.R. (see ch. V) and inflict great damage on U.S. business interests. This issue is discussed at length in chapter IV.

OTHER COMMODITIES AND EQUIPMENT

Phosphates

On February 5, 1980, as part of its post-Afghanistan trade policy, the Carter administration imposed a validated licensing requirement on phosphate rock, all concentrates of phosphoric acid, and all concentrates of phosphatic fertilizer. No export applications for these commodities were to be considered, pending a policy review. Later that month, the Secretary of Commerce announced that the review had been completed and that the embargo would be continued indefinitely.

In 1979, the United States sold to the Soviet Union 543,000 tons of phosphates valued at $93.6 million. Most of these exports consisted of superphosphoric acid (SPA) sold by the Occidental Petroleum Co. The phosphate sales constituted one part of a complex 20-year agreement with the Soviet Union, concluded in 1973 with the approval of the Nixon administration. A section of this agreement provided that Occidental exchange varying quantities of SPA, a high-quality liquid phosphate concentrate used in the production of fertilizers, for varying quantities of other fertilizer chemicals, anhydrous ammonia, urea, and potash. In 1980, Occidental's exports of SPA were to rise to the contract maximum—1 MMT valued at $400 million.

The rationale for the phosphate embargo was that it was inconsistent for the United States to sell phosphate—used in the fertilizer necessary to Soviet grain production—and at the same time embargo grain. Carter administration officials initially forecast that, although the embargo would have little impact on the Soviet Union's 1980 grain crop, it might reduce the 1981 crop by 2 to 2.5 MMT. Since the United States accounted for 90 percent of world production of SPA, they had little concern about Soviet ability to find alternative suppliers. Both the Departments of State and Commerce, however, believed that the Soviets might be able to substitute solid phosphate and phosphatic fertilizer from Morocco and Mexico.[4]

In fact, the phosphate embargo probably did come too late to have much impact in 1980. Nor is it likely that it seriously affected the 1981 grain crop. At the end of 1980, it was reported that the Soviet Union had replaced about 5 percent of the embargoed SPA with purchases from a Belgian company, and another 50 percent with raw phosphate rock from Mexico and Morocco. In addition, Occidental is believed to have shipped 40,000 tons of SPA in 1980 before the embargo went into effect. President Reagan lifted the phosphate embargo together with the partial grain embargo.

The Soviet Union probably was inconvenienced by the U.S. action—phosphate rock requires processing and is highly corrosive. On the other hand, it appears that the major effect of the embargo fell on the United States and the world phosphate market. According to a Carter administration report, the diversion of a large quantity of phosphates from the Soviet Union caused price declines, which produced losses for U.S. producers and gains for U.S. farmers. The impact naturally was greatest for Occidental, which converted one of its plants to produce the lower priced merchant-grade phosphoric acid, at the cost of some jobs. The Carter report forecast that the United States would maintain its dominant position on the world phosphate market, but as in the case of grain, there seems to have been some rearrangement of world trade patterns.

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[4] *Assessment of Afghanistan Sanctions*, op. cit., pp. 55-56.

Equipment for the Kama River Plant

Even before the invasion of Afghanistan, U.S. participation in the Soviet Kama River Automotive Plant was controversial.[5] The world's largest truck factory, Kama includes an IBM computer and other U.S.-origin equipment, purchased under licenses approved by the Nixon and Ford administrations. In the late 1970's, the U.S. Government began to receive reports that the Soviet military was using Kama trucks and that its diesel engines were being installed in military vehicles. This issue became a matter of public controversy in late 1979, when Lawrence J. Brady, then Deputy Director of the Office of Export Administration, told a congressional committee that the Soviet Union was violating U.S. export controls by diverting Kama trucks to military uses.

According to members of the defense and intelligence communities, the Government had known of the diversion of Kama products since 1977, but had not been aware of its scale until the time of Mr. Brady's testimony. U.S. experts concluded that the engines might be suitable for light armored vehicles, but not for ar-

Photo credit: TASS from SOVFOTO

Civilian trucks on the main conveyor at the Soviet Kama River plant mored personnel carriers or tanks. The United States also received information that Kama engines have been used in vehicles produced at ZIL, another Soviet factory. Nevertheless, the Secretary of Commerce held that no violations had occurred, since the licenses had not contained any end-use stipulations. The only restrictions on the computer license applied to the capability of the equipment.

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[5] Ibid., pp. 68-70.

The Carter administration established foreign policy controls on parts and components for truck engine assembly lines intended for Kama as part of its post-Afghanistan sanctions. Their chief effect was to block Ingersoll-Rand from exporting a truck engine assembly line. There was evidence that Kama trucks were appearing in Afghanistan, and the decision was justified on the grounds that it was inconsistent with U.S. policy for an American company to supply a factory that produced vehicles for the invasion. Moreover, U.S. equipment could be further used to increase production while Soviet forces remained in Afghanistan. These controls were extended before President Reagan took office. The Reagan administration broadened them to cover additional equipment and technical data and exports destined for ZIL.

The degree of impact of these controls on either the Soviet Union or the United States is debatable. In a report to Congress, the Reagan administration concluded that the denial of the Ingersoll-Rand equipment ". . . has greatly delayed Soviet expansion of engine production, and has probably caused them to forego planned production of a substantial number of trucks;" moreover, the expanded controls on exports to Kama and ZIL "should delay modification, updating, or expansion of these plants while alternate sources are developed."[6] The report also noted the possibility of diversion from approved consignees in the Soviet Union (not all Soviet automotive factories are covered by the controls). After consulting with Ingersoll-Rand, the administration concluded that the loss of the $8 million contract had little impact on the company, its employees, or the community.

A somewhat different assessment was later presented to the Senate Foreign Relations Committee by Ingersoll-Rand officials.[7] They testified that the Soviet Union had contracted with Comau, a division of Fiat, for replacement equipment. Ingersoll did not find an alternate use for the order, but it did receive partial compensation under a political risk insurance policy. However, insurance companies were unwilling to continue Ingersoll's political risk insurance for proposed sales of automotive equipment to the Soviet Union and East Germany. Without the insurance or assurances from the Government that the contracts would not be abrogated, Ingersoll decided not to pursue the deals, which were valued at $60 million. Several hundred workers and contractors were laid off in consequence.

Sanctions Related to the Olympics

On May 28, 1980, the Carter administration imposed foreign policy controls on all exports except medicine and medical supplies intended for use or sale during the 1980 Moscow Summer Olympics. The control also applied to "payments or transactions which are in any way related to arrangements involving or requiring such exports, where such payments or transactions could provide financial support for such games." The prohibition on payments was aimed at NBC, winner of the network bidding war to televise the Olympics. In a directive to the Secretary of Commerce, the President explained that the purpose was to carry out his decision against "any United States participation in or aid to" the Games.[8] The control followed a request by DOC to the 20 or 30 firms involved to voluntarily refrain from exporting supplies for the Games. Several firms had announced that they would uphold the President's request, but many urged the administration to impose a mandatory ban because of their concern that voluntary compliance would expose them to Soviet breach-of-contract suits.

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[6] "Report to the Congress Extending and Expanding Foreign Policy Export Controls," reprinted in U.S. Department of Commerce, International Trade Administration, *Export Administration Annual Report FY 1982*, Washington, D.C., February 1983, p. 152.

[7] "Statement of T. A. Dukes, Executive Vice President, the Ingersoll-Rand Co., accompanied by Robert J. Secombe, Vice President, Automated Production Systems Division. Woodcliff Lake, N.J.," in U.S. Congress, Senate Committee on Foreign Relations, Subcommittee on International Economic Policy, *Economic Relations With the Soviet Union*, hearings, 97th Cong., 2d sess., July 30, Aug. 12 and 13, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982), pp. 204-207.

[8] Reprinted in 45 FR 21613.

These export controls, which lapsed in January 1983, appear to have had a minimal economic impact on either the Soviet Union or the United States as a whole. According to the Reagan administration's report to Congress, licenses for goods valued at $35 million were revoked or denied, and payments of $27 million for special rights and privileges were stopped.[9] Although press reports indicate that the Soviet Union was able to replace some of the embargoed U.S. goods, this control caused inconvenience and somewhat reduced hard currency receipts. U.S. firms also suffered some short-term and, in the case of companies that sought to break into the Soviet market by being Olympic suppliers, possible long-term losses.[10]

In sum, while the foreign policy controls on grain and oil and gas technology are considered to have had the greatest impact on both the United States and the Soviet Union (these are discussed in ch. IV), the controls on phosphates, equipment for Kama, and Olympic-related goods and payments probably reinforced the message of the sanctions policy. At the same time, they may also have contributed to the perception of the United States as an unreliable supplier.

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[9] "Report to the Congress Extending . . . ," op. cit., p. 155.

[10] *Assessment of Afghanistan Sanctions*, op. cit., pp. 91-92.

NATIONAL SECURITY CONTROLS

As in the case of foreign policy controls, the policies of the Carter and Reagan administrations on national security controls reflect a changed climate of opinion on the desirability of trade with the U.S.S.R. Since the passage of the 1979 EAA, licensing of exports to the Soviet Union was temporarily suspended twice and more stringent licensing criteria have been applied. Both administrations have differentiated between the Soviet Union and some East European nations.

SOVIET UNION

All outstanding validated licenses and the processing of applications for new licenses for exports to the Soviet Union were suspended in early January 1980 after the invasion of Afghanistan and U.S. licensing policy was reviewed. In April 1980 DOC began reviewing suspended validated licenses, and began to process new applications using more restrictive policy guidelines.[11] The new guidelines included the following:

- A "no exceptions" policy, under which the United States would deny most applications to export goods subject to CoCom controls. Thus, the United States would no longer request exceptions in CoCom. There were some "exceptions to the exceptions" for humanitarian exports (items essential to public health and safety), and for exports enhancing Western security (servicing for safeguards and items protecting Western access to vital commodities). At U.S. request, the other CoCom members also adopted a "no-exceptions" policy.
- Adoption of stricter technical criteria for computer exports.

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[11] "U.S.-U.S.S.R. Trade After Afghanistan," *Business America*, Apr. 7, 1980, pp. 3-12.

- Applications involving process control technology in militarily relevant industries, technology for producing oil and gas equipment, and technical data related to items subject to multilateral controls would be subject to special scrutiny.
- A presumption of denial would exist for applications for proposed exports of technology for manufacturing oil and gas exploration and production equipment. A presumption of approval would exist for end-use products.

In addition, DOD canceled a delegation of authority to DOC, under which it exempted itself from reviewing applications for low-technology exports destined for the U.S.S.R. All license applications involving high-technology sales to the Soviet Union were denied during the 18 months ending September 30, 1981.[12] Of the more than 1,000 validated licenses returned to DOC after the suspension, over 500 were canceled before being reviewed because they had expired or because the export had been shipped. During the review, 281 were reinstated, 120 revoked, 54 more canceled, and processing of 21 was discontinued.[13]

The Reagan administration also conducted a lengthy review of licensing policy for the Soviet Union, concluding that a significant tightening of export licensing was required. It has retained the no-exceptions policy, and following the Polish declaration of martial law, suspended all licensing for exports to the Soviet Union for nearly 11 months. Licensing was resumed only after November 13, 1982. (See the Foreign Policy section above.) These actions all reflect the administration's view that security concerns must take precedence over commercial interests in cases of exports with possible military relevance.

EASTERN EUROPE

The Carter administration never applied the "no-exceptions" policy to Eastern Europe, nor did it change its policy of treating these countries individually rather than as members of the Soviet bloc. The rationale here was that the other Warsaw Pact countries did not participate in the Soviet invasion of Afghanistan. This policy, known as the "independent country" or "differentiated" policy, allowed the United States to apply more liberal licensing criteria to countries that maintain some distance from Soviet foreign policy (Romania[14]) or have more liberal domestic policies than the Soviet Union. The Carter administration liberalized licensing policy towards Hungary on the latter grounds. The change, which went into effect in June 1980, reflected the entry into force of the U.S.-Hungarian trade agreement, Hungary's relatively liberal internal and emigration policies, and its implementation of the Helsinki Final Act.[15]

At the same time, applications for licenses to East European countries have been more carefully scrutinized for possible diversion to the Soviet Union. Exporters have charged that this policy has significantly slowed license processing. Be that as it may, the value of approved high-technology exports to Eastern Europe increased from $127 million in 1979 to $340 million in 1980.[16]

In September 1982 a new interagency group on policy towards Eastern Europe affirmed the practice of differentiating U.S. relations with the countries of Eastern Europe. However, one sphere in which the Reagan administration's policy differs from that of its predecessor is on the question of technology transfers to non-Soviet Warsaw Pact nations. The current program involves tightening, in consultation with our allies, export controls across the board in order to guard against diversion to the Soviet Union.[17] The following factors are now considered in licensing exports to Eastern Europe:

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[12] U.S. General Accounting Office, *Export Control Regulation Could Be Reduced Without Affecting National Security*, Washington, D.C., May 26, 1982, p. 8. (Hereafter, GAO Report.)

[13] *Export Administration Annual Report FY 1982*, op. cit., p. 28.

[14] Romania's recent imposition of an education tax on prospective emigrees may possibly lead to the suspension of its MFN status. It is also possible that license applications for exports to Romania will now be reviewed more strictly.

[15] 45 FR 37183-37184.

[16] GAO Report, op. cit., p. 33.

[17] Reprinted in U.S. Congress, House Committee on Foreign Affairs, Subcommittee on Europe and the Middle East, *Developments in Europe, August 1982*, hearings, 97th Cong., 2d sess., Aug. 10, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982), p. 23.

- For all items controlled for security purposes, the risk of diversion to military use in East European countries.
- For items which would not be approved for export to the U.S.S.R., the risk of diversion to that country.
- For items of marginal security concern, efforts by certain East European countries to distance themselves from Soviet foreign or domestic policies, particularly Romania and Hungary.[18]

The administration distinguishes between technology and products, assuming that the former is more likely to be made available to the Soviet Union by East European importers.

In order to prevent possible diversion of embargoed items to the U.S.S.R., in June 1982 the Reagan administration adopted the practice of denying all applications involving high-technology exports to Poland and more carefully checking applications involving low technology. This practice was rescinded in November 1982.[19] In the meantime, no validated licenses were issued for Poland. Moreover, there is some evidence that the entire policy of differentiation has recently existed more in theory than in practice, and that in fact all of Eastern Europe is now being treated —particularly by the Department of Defense— much the same as the U.S.S.R. for export control purposes.

The Militarily Critical Technology List (MCTL)[20]

The first version of the MCTL, compiled in DOD, was published in classified form in January 1980. DOD has since revised the list; and a second version was published in November 1981. Again, except for the Contents, the 800-page MCTL was classified. The administration has been using the MCTL and the information obtained in preparing it in its CoCom proposals. Defense is also using the MCTL as a guide in reviewing license applications, although Commerce only employs a small part of it in its own reviews. The MCTL will have to be further refined before being incorporated into the Commodity Control List, and CoCom approval will have to be obtained for multilateral use. Technical Advisory Committees, composed of technical representatives of business (predominately defense suppliers) and the Government, are presently working on these revisions. The MCTL is discussed further in chapter VI.

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[18] Gerhard Mally, "Technology Transfer Controls," *Department of State Bulletin*, vol. 82, No. 2068 (November 1982), p. 53.

[19] 47 FR 51858-61.

[20] See also *Technology and East-West Trade*, op. cit., ch. V.

ADMINISTRATIVE ISSUES

LICENSING

The export licensing system has long been criticized as being too cumbersome, too slow, and too opaque, and the Export Administration Regulations have been described as complex and difficult to interpret. Licensing decisions have also been the subject of controversy. For some, too many applications are denied; for others, too few. Those of the former viewpoint have often complained that the Government denies licenses for goods and technology freely available abroad, to the detriment of exporters and the U.S. balance of payments. Chapter II has listed the measures in the 1979 EAA designed to address these concerns. Events subsequent to 1979 have shown mixed results in implementing many of these provisions.

There is general agreement, for instance, that DOC has made little or no progress in establishing a capacity to monitor foreign availability, a perception supported by the fact that no licenses were granted in fiscal years 1980 through 1982 for reasons of foreign availability.[21] DOC officials have conceded in congressional testimony that this has been the case, but point out that Congress made no appropriation for staffing and that external research funds were impounded until fiscal year 1982. DOC has now established a foreign availability assessment program. This subject is discussed further in chapter VII.

Similarly, the creation of the Qualified General License (QGL) has resulted in little effective change in the administration of export licenses. Regulations establishing procedures for the use of the QGL were published in the *Federal Register* in July 1980.[22] To be eligible for a QGL, the exporter must "reasonably expect" that it would replace at least 10 validated licenses annually to eligible countries. In addition, the foreign consignee must be the end user. Initial licenses are valid for a year, and may be extended for two more. But despite the language in EAA encouraging the use of QGLs wherever possible, only four such licenses had been issued through September 1982. The Reagan administration now proposes eliminating this license entirely from the new EAA.

Other measures to speed or improve the licensing process have fared better. The Commodity Control List was reformatted for easier use during 1982; the staff of DOC's Office of Export Administration has been increased; and the installation of a computer system to track license applications and provide enforcement information has met with some success. The elimination of the requirement that licenses be obtained to reexport items in CoCom-approved transactions has also resulted in some paperwork reduction.

Reagan administration officials have reported to Congress that the interagency licensing system has also been revitalized, although bureaucratic tugs of war between the agencies involved have by no means been eliminated. In addition to the formal interagency review process described in detail in chapter VII of *Technology and East-West Trade,* Senior Interagency Groups have been formed to provide an additional arena for issue resolution. While a large number of referrals to such groups might tend to slow the licensing process, and could potentially contradict the intent of Congress stated in the 1979 EAA that "a determination with respect to any export license application be made to the maximum extent possible by the Secretary [of Commerce] without referral of such application to any other department or agency," there is little evidence that this process is much used. Defense continues to review a relatively large number of applications, but only a few receive a formal interagency review. Of the 6,635 applications to export items controlled for national security purposes to proscribed countries received by Commerce in 1982, 1,800 were referred to DOD; interagency discussions were required for fewer than 200; and fewer than 20 were referred to the Assistant Secretary level or higher.[23]

Administration policies adopted after 1979 have undoubtedly placed additional strains on an already overburdened licensing system. Among these were the Afghanistan-related review of previously issued validated licenses; the new guidelines for exports to the Soviet Union (see above) and China (see appendix), which increased the number of cases for which there were no precedents; and more careful checking for the possibility of diversion to the Soviet Union of exports to Eastern Europe.[24] Officials have reported success in eliminating the backlog of unprocessed applications and meeting statutory deadlines, and the export community largely agrees that progress has been made. Nevertheless, as table 2 suggests, there may still be room for improvement.

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[21] *Export Administration Annual Report FY 1980,* pp. 13-14; *Export Administration Annual Report FY 1981,* p. 18; and *Export Administration Annual Report FY 1982,* p. 16.

[22] 45 FR 45891-45898. Regulations implementing the new licensing procedures required by the act were also issued. Both went into effect on June 1, 1980, the deadline specified in the act.

[23] "Statement of Lionel H. Olmer, Under Secretary for International Trade, U.S. Department of Commerce," before the Senate Banking Committee, Feb. 3, 1983, mimeo., pp. 1-2.

[24] See testimony by representatives of Commerce and Defense in U.S. Congress, House Committee on Foreign Affairs, Subcommittee on International Economic Policy and Trade, *Export Administration Amendments Act of 1981,* hearings, 97th Cong., 1st sess., Mar. 26; Apr. 14, 28; May 13, 1981 (Washington, D.C.: U.S. Government Printing Office, 1981), pp. 93-94, 120-121.

Table 2.—Time Required To Process Licenses, Fiscal Year 1982

Number of licenses	In process
64,682	< 30 days
7,651	30-59 days
2,295	60-89 days
1,530	90-179 days
350	> 180 days

SOURCE: "Prepared Statement of Lionel H. Olmer, Under Secretary for Trade Administration, Department of Commerce, Before the Subcommittee on International Economic Policy and Trade, Committee on Foreign Affairs, U.S. House of Representatives, Washington, D.C., Mar. 1, 1983," mimeo, p. 15.

ENFORCEMENT

Compliance with U.S. export control regulations has become a major focus of congressional, executive, and public interest. In part, this increased attention stems from a perception that the enforcement of U.S. export controls has been poorly handled by DOC, which has the primary responsibility for enforcement under the EAA. Interest has also been generated by the considerable media attention devoted recently to cases of export control violations. The most dramatic is the CTC-Mulata (or Bruchhausen) case, in which over a 3-year period the defendants illegally exported to the Soviet Union over $10 million worth of equipment for manufacturing and testing semiconductors.

This attention is reflected in the numerous studies and hearings on enforcement which have taken place since 1979. These include the following:

- At the request of Senators Jake Garn and Harry Byrd, in February 1980 the General Accounting Office (GAO) studied the U.S. export control system. Part of this report, published on May 26, 1982, deals with enforcement problems.
- An interagency working group was formed in June 1980 at the request of President Carter to investigate enforcement efforts. It concluded that "much needed to be done to strengthen our combined efforts in this area."[25]
- Congress' perception that compliance by U.S. firms and cooperation among agencies with enforcement responsibilities needed improvement was reflected in the Export Administration Amendments Act of 1981 (see below).
- Two 1982 studies by DOC's Inspector General and the Minority Staff of the Permanent Subcommittee on Investigations were specifically addressed to the DOC's enforcement efforts.

Overview of U.S. Enforcement Efforts

Major responsibility for enforcement of the 1979 EAA lies in the Office of Export Enforcement (OEE), recently created by reorganization and expansion of the former Compliance Division (CD) of the Office of Export Administration. However, the Treasury Department's Customs Service and the Federal Bureau of Investigation (FBI) also have responsibilities in this area. Until the fall of 1981, the Customs Service's contribution primarily consisted of conducting searches under warrant, seizing cargo, and making arrests—activities for which DOC staff have no legal authority. In addition, Customs has undertaken its own domestic and overseas investigations and, with the launching of Project Exodus in fiscal year 1982, Customs has become more actively involved in enforcement.

The purpose of Operation Exodus is "to both assess the threat of technology loss to the security of the United States and actively disrupt the illicit flow of technology out of the United States."[26] Exodus has begun with a massive cargo inspection program. This represents a major policy change, as the United States previously mounted only token cargo inspection efforts. Other stages will focus on investigations and the active involvement of Customs' agents stationed overseas in violation cases. Table 3 presents the first year results of the program. It is not clear, however, how many of the seizures involved genuine attempts at diversion, and how many simply resulted from errors in paperwork or documentation.

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[25] "Prepared Statement of Robert L. Keuch, Associate Deputy Attorney General, Department of Justice," in ibid., p. 61.

[26] *Operation Exodus—FY 1982 Report.* (Appended to testimony by William von Raab, Commissioner of Customs, to the Senate Committee on Banking, Housing, and Urban Affairs on Feb. 3, 1983.

Exporters and some Members of Congress now complain that the Exodus program is delaying legal shipments and causing customer problems. The Customs Service's report on Operation Exodus acknowledges these complaints, but contends that delays "should diminish substantially in the near future" with the improved training of agents and liaison with DOC's licensing staff. Operation Exodus has also been criticized on the grounds that cargo inspection has been overemphasized. According to GAO, the utility of cargo inspection is limited by the following factors:

- the growing volume of exports,
- the large number of exit points,
- the difficulty of inspecting more than a fraction of U.S. exports,
- the problem of determining whether a given shipment requires a license,
- the trend towards containerization, and
- the fact that some exports do not become illegal until they are reexported.[27]

From his experience as a prosecutor of cases involving export control violations, the Deputy Assistant Secretary of Commerce for Export Enforcement, Theodore Wai Wu, concluded that there is a role for cargo inspection, but that investigatory efforts "concentrated as far upstream as possible produce the best possible results."[28] Similarly, although the ratio of detentions to seizures is high, and has therefore been criticized, Customs asserts that the increase from the 196 seizures valued at $9 million in calendar year 1981 to 765 seizures valued at $56 million in 1982 is a significant result of Exodus.

Table 3.—Results of Operation Exodus During Fiscal Year 1982

Number of detentions	2,481
Number of shipments seized	765
Value of shipments seized	$55,665,482
Percentage of detentions resulting in seizures	30.8
Average detention period (in days)	3-5

SOURCE: *Operation Exodus—FY 1982 Report*, p. 6.

Other Government agencies are also involved in enforcement. Although the FBI has no jurisdiction in cases involving unclassified technology subject to export controls, it can investigate enforcement cases if foreign intelligence agencies are involved; if unclassified technology valued at more than $5,000 is stolen and transported across State lines; or if the technology is classified for national security reasons. Related FBI activities include the Development of Counterintelligence Awareness program for defense contractors.

The intelligence agencies provide information to DOC and Customs, and if the case has international aspects, the State Department may become involved.[29] State maintains a network of Economic Defense Officers (EDO), who perform the following functions on a full- or part-time basis:

- prelicensing and postshipment checks,
- reporting on potential diversions,
- service of legal papers, as permitted by local law,
- liaison with local enforcement authorities, and
- informing U.S. and local businessmen of U.S. export controls.

EDO's and Foreign Commercial Service personnel appear to be the major implementors of DOC investigations overseas. When the

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[27] GAO Report, pp. 24-25. GAO is preparing a report on Operation Exodus, which will be completed later this year.

[28] "Prepared Statement of Theodore Wai Wu, Deputy Assistant Secretary for Export Enforcement, International Trade Administration, Department of Commerce, before the Subcommittee on International Economic Policy and Trade of the Foreign Affairs Committee and Subcommittee on Trade of the Ways and Means Committee, U.S. House of Representatives, Washington, D.C., Mar. 1, 1983," mimeo, pp. 3-4.

[29] "Prepared Statement of Harry Kopp, Deputy Assistant Secretary of State for Economic and Business Affairs, Department of State," in *Export Administration Amendments Act of 1981*, op. cit., pp. 34-37.

State Department receives information on an attempted or actual diversion, it tries to determine whether U.S.-origin goods are involved. If so, State refers the case to DOC or to the Customs Service. If the goods are not thought to be of U.S.-origin, the case is referred to a high-level interagency committee in the United States, which may refer it to the appropriate foreign government.

Criticisms of DOC's Enforcement Effort

Most criticisms of U.S. enforcement efforts have targeted DOC. In April 1982 the Office of the Inspector General of the Commerce Department investigated the DOC's Compliance Division, and identified a number of deficiencies in its operations:

- no comprehensive appraisal of or effective overall strategy to address the Nation's technology leakage problem;
- insufficient trained personnel;
- inadequate management direction and oversight;
- failure to use modern, state-of-the-art intelligence, investigative, and enforcement techniques and systems;
- lack of strong leadership and clear lines of organizational responsibility within OEE/CD;
- unwarranted interference in the detailed conduct of OEE/CD investigative operations by the Deputy Assistant Secretary for Trade Administration;
- inadequate cooperation and coordination with the U.S. Customs Service and vital information sources in the U.S. intelligence community;
- inadequate travel funds, law enforcement equipment, and other support resources; and
- use of antiquated or inefficient internal administrative and management systems and procedures.

These deficiencies may partially reflect a conflict between DOC's dual roles of promoting and controlling exports but, as the Interagency Group concluded, this is not a full explanation of the difficulty:

> It is clear, however, that the Department's failure to provide adequate resources, policy guidance and management direction has impeded the compliance effort and produced at very least the perception of a de facto supremacy of the trade promotion mission over the Department's export control function.
>
> What is also clear, from the findings in this report, is that the Department of Commerce has not taken a bold lead in forging an aggressive multiagency effort to halt the illicit export of controlled products.[30]

The staff of the Senate Permanent Subcommittee on Investigations (PSI) found many of the same deficiencies in the Compliance Division. Its report included findings that CD was understaffed and poorly equipped; that some of the staff were poorly trained; and that there was a backlog of cases in the Investigations and Intelligence Branches. The PSI report also noted a lack of good working relations between the Compliance Division and Customs, which it attributed to DOC's strict interpretation of EAA provisions on release of proprietary information and to concern on the part of Customs agents that the Compliance Division's "inexperienced personnel were involving themselves improperly in Customs' foreign work . . . . The PSI staff also found that DOC was "not comfortable" with controlling exports because it focused on export promotion and that Commerce had a "limited tradition and expertise in traditional law enforcement." They concluded, in short, that:

> Understaffed, flagrantly short of resources, the Division cannot do the job effectively; but, by its very presence, prevents other components of government from taking on the task.[31]

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[30] U.S. Department of Commerce, Office of Inspector General, Office of Investigation, *Report on Inspection, Compliance Division, Office of Export Administration.* Reprinted in U.S. Congress, Senate Permanent Subcommittee on Investigations, *Transfer of United States High Technology to the Soviet Union and Soviet Bloc Nations,* hearings, 97th Cong., 2d sess., May 4, 5, 6, 11, and 12, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982), pp. 606-637.

[31] U.S. Congress, Senate Committee on Governmental Affairs, Permanent Subcommittee on Investigations, *Transfer of United States High Technology to the Soviet Union and Soviet Bloc Nations,* Report No. 97-664 (Washington, D.C.: U.S. Government Printing Office, 1982), pp. 36-40.

Consequently, PSI staff recommended giving Customs temporary responsibility for enforcement and then creating an Office of Strategic Trade, as proposed by Senator Garn. (See ch. VII.)

Even before these reports, DOC itself had been concerned about the effectiveness of its enforcement activities, and it has now introduced or planned several measures to improve them. They included an organizational change in which the Compliance Division was upgraded to become the Office of Export Enforcement, and the appointment of a Deputy Assistant Secretary for Export Enforcement. Perhaps more importantly, DOC has now devoted more resources to enforcement by shifting funds from other offices within the International Trade Administration. More investigative equipment has been purchased and travel funds increased. Two field offices in California were opened. There are plans to improve intelligence operations and to automate certain functions. DOC has also taken some steps to improve cooperation with the Customs Service. For instance, the Secretary of Commerce has issued blanket authority for release of proprietary data. In addition, the two agencies are negotiating a Memorandum of Understanding, setting out the responsibilities of each. In sum, in the words of Commerce's Inspector General,

> . . . the Department clearly has taken steps since last spring to give its export enforcement mission additional resources, greater cohesion, and more professional management. Many of the problems we identified in our inspection have been corrected, and others seem well on the way to correction. Does this mean that everything necessary has been done to evolve an effective national strategy to combat the illicit leakage of technology? Of course not. The operative word is "evolve."[32]

DOC officials have assured Congress that DOC does have an enforcement strategy and has made considerable progress. They report that OEE was the sole or primary investigator or initial referee of 16 of the 23 cases involving possible criminal violations referred to the Justice Department since July 1, 1982. Table 4 presents statistics comparing Commerce's and Customs' cargo inspection programs.

Other Problems

It has been charged that action is taken on too few detected violations, and that penalties are too lenient, often the imposition of administrative rather than criminal sanctions. A variety of explanations for this situation have been advanced. First, a number of violations, such as exporting under expired licenses, are minor. Second, to be prosecuted as criminal the violation must have been a knowing or willful act.[33] Third, criminal prosecution

Table 4.—Comparison of OEE and Customs Cargo Seizures

Time period	Detentions	Violations resulting in seizures	Percentage of detentions resulting in seizures
FY 81—Commerce	628	128	25.5 [sic]
FY 82—Commerce	584	242	42.5 [sic]
FY 82—Customs OPEXODUS	2,481	765	30.8[a]
FY 83—Commerce[b]	167	81	48.5
FY 83—Customs[b] OPEXODUS	809[c]	286[c]	35.3

[a] According to DOC, these figures include 82 seizures pursuant to the Arms Export Control Act so the percentage connected with the Export Administration Act is 27.5.

[b] Through Jan. 11, 1983.

[c] Reported to OEE by Customs.

SOURCE: "Statement of Lionel H. Olmer, Under Secretary for International Trade, U.S. Department of Commerce, Before the Senate Banking Committee, Feb. 3, 1983," mimeo, Attachment B.

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[32] "Statement by Sherman M. Funk, Inspector General, U.S. Department of Commerce, Before the Senate Committee on Banking, Housing and Urban Affairs, Feb. 3, 1983," mimeo, p. 8.

[33] "Prepared Statement of William V. Skidmore, Director, Office of Export Administration, Department of Commerce," in *Export Administration Amendments Act of 1981*, op. cit., p. 14.

of foreign nationals is extremely difficult unless they are arrested in the United States. Few countries view export control violations as seriously as does the United States, and many countries are hesitant to permit extradition. Fourth, GAO has found that due to the length of investigations and a growing backlog of cases, DOC is closing a high percentage of cases with warning letters instead of stricter penalties. One of the reasons for this backlog is the length of time needed to conduct a major investigation overseas.

Overseas investigations of potential export control violations are carried out by both Commerce and Customs. GAO has criticized DOC for conducting their activities through embassy officials instead of relying on Customs. It argues that these officials have little experience in such cases and accord them low priority, whereas the Customs Service has agents stationed abroad and mutual assistance agreements with parallel agencies and police in other countries. These issues are discussed further in chapter VII.

LEGISLATIVE DEVELOPMENTS

Export administration, and particularly the President's use of foreign policy controls, was a controversial issue in the 96th and 97th Congresses. Many in Congress supported both President Carter's and President Reagan's use of embargoes and sanctions. Others were concerned about the impact of the grain embargo on the U.S. farm sector and on the U.S. reputation as a reliable supplier. These legislators sought embargo protection, and their concerns led to the adoption of provisions enforcing existing agricultural export contracts and requiring compensation for farmers in the event of a selective embargo on agricultural commodities. Several highly publicized violations of U.S. export controls raised the level of congressional attention to enforcement and compliance. These issues were the subjects of the legislation described below.

EXPORT ADMINISTRATION AMENDMENTS ACT OF 1981

In addition to extending authority for export controls through September 30, 1983, and authorizing appropriations for export administration in fiscal years 1982 and 1983, the Export Administration Amendments Act of 1981 (Public Law 97-145) was intended to improve enforcement and compliance. Reacting in large measure to testimony by GAO that the agencies responsible for enforcement—DOC, FBI, and Customs—were not cooperating in investigating suspected violations of the 1979 EAA, the drafters included a provision requiring responsible agencies to share information relevant to enforcement in a manner consistent with the "protection of intelligence, counterintelligence, and law enforcement sources, methods, and activities."[34] This provision does not apply to Census Bureau data or to certain information from tax returns. The act increased maximum penalties for violations, distinguishing between individuals and entities such as corporations, which are liable to higher fines. Maximum criminal penalties were increased from $100,000 to $250,000 for individuals and $1,000,000 for businesses. Maximum civil penalties for violations of national security controls, but not of other controls, jumped from $10,000 to $100,000 per violation. (Many cases involve multiple violations.)

The 1981 act also stipulates that information on export controls be made available to the Chairmen and Ranking Minority Members of the committees of jurisdiction and, subject to certain restrictions, to GAO. The impetus for this provision was the delay GAO experienced in obtaining information from DOC for a congressionally mandated study.[35]

Reflecting widespread concern that the Soviet Union might invade Poland to crush

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[34] Senate Report No. 97-91, p. 2.

[35] Ibid.

Solidarity, the act includes a provision that no legislation should be construed as prohibiting the imposition of a total embargo in the event of "military action" against Poland by the Soviet Union or the Warsaw Pact. The legislation does prohibit the President from imposing foreign policy controls on agricultural commodities that would cause "measurable malnutrition," unless he determines that controls are necessary to protect U.S. national security or that the food would not be distributed to those most in need.

AGRICULTURE AND FOOD ACT OF 1981

The Agriculture and Food Act of 1981 (Public Law 97-98) reflected congressional concern on the issue of agricultural embargoes which, many felt, had not been adequately addressed in the Export Administration Amendments Act. It did not directly limit the President's ability to embargo agricultural commodities, but established compensation for farmers for losses due to selective controls on the assumption that the increased budgetary costs would tend to discourage the President from selectively barring agricultural exports in cases not serious enough to warrant embargoing all exports.

The act stipulates that if a selective embargo is imposed on agricultural commodities for reasons of national security or foreign policy, the Government must:

1. set the loan rate at 100 percent of parity,
2. make direct payments to producers equal to the difference between parity and postembargo prices, or
3. introduce an equivalent combination of loans and cash payments. To become effective, the embargoed country must account for more than 3 percent of U.S. exports of the affected commodity.

FUTURES TRADING ACT OF 1982

Congressional concern that the sanctity of existing agricultural export contracts be guaranteed in the event of another embargo was reflected in an amendment to the Futures Trading Act of 1982 (Public Law 97-444), passed in October 1982. Known as the contract sanctity provision, it prohibits restrictions on export contracts concluded before the imposition of an embargo, if they call for delivery within 270 days following the embargo announcement. The provision is not applicable when the United States is at war or during a national emergency declared by the President. There was speculation that President Reagan would veto the bill because the contract sanctity provision would reduce his flexibility to conduct foreign policy. The State Department was reported to have recommended a veto. Nonetheless, the President announced at a meeting of the Farm Bureau Federation on January 11, 1983, that he had signed the bill.

DEVELOPMENTS IN COCOM

The Reagan administration's review of U.S. East-West trade policy placed special emphasis on CoCom. Its concern reflected the recognition that cooperation with other major Western countries was essential to stemming the flow of technology to the Soviet Union, and the belief that CoCom was not as effective a control mechanism as it could and should be. The administration's assessment of CoCom was capsulized in the testimony of a high-ranking Commerce official, who told Congress, "Quite frankly, CoCom needs rejuvenating. Even the strategic criteria on which the institutional structure rests may require examination."[36]

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[36] U.S. Congress, Senate Committee on Foreign Relations, Subcommittee on International Economic Policy, *East-West Economic Relations*, hearings, 97th Cong., 1st sess., Sept. 16, 1981 (Washington, D.C.: U.S. Government Printing Office, 1981), p. 9.

In general terms, the Reagan administration's approach to CoCom has consisted of stressing the following elements:

- tighter controls on exports of goods and technology to the Soviet Union,
- improved enforcement by members of national and multilateral export controls,
- "harmonization" of members' licensing procedures,
- greater involvement of other members' military establishments in export policy, and
- incorporation of the critical technologies approach into CoCom's licensing criteria.

By "harmonization" the administration seems to mean ascertaining that the licensing processes of member countries are such as to ensure a thorough review of proposed transactions, and encouraging the participation of foreign defense ministries in licensing decisions. Achievement of the fourth goal would bring allied practice more in line with that of the United States, where DOD plays an important role in licensing decisions. Concomitantly, the Reagan administration appears to be trying to involve NATO in the export control process.

Efforts to incorporate the critical technologies approach and to tighten controls on exports to the Soviet Union did not originate under the Reagan administration. Like its predecessors, the Carter administration sought the inclusion of new items on the list. In addition, it began the work on the critical technologies approach and, following the invasion of Afghanistan, persuaded the other members of CoCom to agree to the no-exceptions policy for exports to the Soviet Union.

The Reagan initiative started publicly at the Ottawa summit in July 1981, where the President raised U.S. concerns about CoCom's operations and emphasized the importance of the issue to the United States. The communique issued at the end of the summit made a vague reference to "ensur[ing] that, in the field of East-West relations, our economic policies continue to be compatible with our political and security objectives." Presumably, the lack of details indicated the persistence of differing views, but the United States did obtain the participants' agreement to "consult to improve the present system of controls on trade in strategic goods and related technology with the U.S.S.R."[37] This agreement resulted in the scheduling of a high-level CoCom meeting for January 1982 in Paris.

U.S. officials billed the high-level meeting as "the first broad reconsideration of our technology control system in nearly thirty years."[38] In large measure, U.S. officials respected CoCom's tradition of confidentiality in describing both the specifics of U.S. proposals and the results of the meeting. Nonetheless, some of the details have been made available. According to press reports, the United States proposed tighter controls on advanced computers, other electronics, fiber optics, semiconductors, and certain metallurgical processes; and restrictions on turn-key plants in military-related industries and on training programs for Soviet bloc nationals in military-related technologies. The U.S. delegation may also have reiterated an earlier proposal that CoCom review all contracts worth over $100 million and proposed a moratorium on exceptions requests for the entire Soviet bloc.[39]

Under Secretary of State James L. Buckley, who led the U.S. delegation, has testified that

> . . . there was a concrete consensus that the member governments should increase their effort to improve CoCom's effectiveness. We have been encouraged by what appears to be a new and more constructive attitude of other CoCom governments and feel that this meeting forms a basis for a revitalization of the CoCom system.[40]

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[37] Reprinted in *Department of State Bulletin*, vol. 81, No. 2053 (August 1981).

[38] Caspar W. Weinberger, "Technology Transfers to the Soviet Union," *Wall Street Journal*, Jan. 12, 1982, p. 32.

[39] Paul Lewis, "Allies Discuss More Curbs on Sales to Soviet Bloc," *New York Times*, Jan. 20, 1982, p. A8; "U.S. Allies Agree to Redefine Rules on Sales to Soviets," *Wall Street Journal*, Jan. 21, 1982, p. 31; and Paul Lewis, "Soviet Pipeline Called Vulnerable," *New York Times*, Jan. 21, 1982, p. A4.

[40] "Statement of James L. Buckley, Under Secretary for Security Assistance, Science, and Technology, Department of State," in *Transfer of United States Technology* (hearings), op. cit., p. 158.

It was reported that the other CoCom members agreed to "redefine" CoCom's guidelines, to include modern technologies on the list, and to refrain from requesting exceptions for exports to the Soviet bloc until the 1982/83 list review had been completed.[41]

In a communique issued at the end of the 1982 Versailles summit, participants pledged to continue work on improving the CoCom control system and members' enforcement arrangements.[42] This will be a two-pronged effort. First, as part of the program of studies announced in November 1982, and discussed in chapter V, the United States, the major West European countries, and Japan will study ways to speed up and broaden CoCom's work and CoCom will study whether to include oil and gas equipment on the List even though it does not have direct military applications.

The second effort is the routine List review, which occurs approximately every three years. The first round of the 1982/83 List review ran for 4 months, concluding in February 1983; the second round may have begun as this document goes to press. Under Secretary Buckley's testimony in May 1982 indicated that the United States was working on proposals to "expand CoCom control Lists into previously uncovered priority industries,"[43] including the following: gas turbine engines, large floating dry docks, certain metallurgical processes, electronic grade silicon, printed circuit board technology, space launch vehicles and spacecraft, robotics, ceramic materials for engines, certain advanced composites, communications switching equipment, computer hardware, and computer software technology and know-how. This is an ambitious agenda and particular resistance is expected in the case of gas turbine engines and computer software technology. The administration also plans proposals on harmonization and enforcement.

In nonspecific terms, U.S. officials have noted progress in obtaining approval of U.S. positions in CoCom. Their lack of specificity may reflect their observance of confidentiality. Many observers, however, suspect that it also reflects persistent differences within the organization. Members of the administration concede that the process of reaching agreement will be lengthy and difficult, but they cite U.S. successes in obtaining greater involvement of allied military and defense officials in CoCom proceedings and in using information obtained from the Defense Intelligence Agency and other intelligence sources to convince CoCom to add items to its List or to deny license applications. In addition to its importance for East-West trade, the CoCom List review is critical to West-West trade since the Reagan administration has linked progress in CoCom to changes in controls on U.S. trade with CoCom countries.

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[41] "U.S. Allies Agree to Redefine Rules on Sales to Soviets," op. cit., p. 31 and Lewis, "Soviet Pipeline Called Vulnerable." The former followed up on an agreement to add specific references to technology as well as to products to the CoCom strategic criteria and to include controls on technology in the Cocom List itself rather than as an "administrative principle" appended to the List, which was proposed by the Carter administration during the 1978/79 List review.

[42] For the text of the Communique, see *Department of State Bulletin*, vol. 82, No. 2064 (July 1982), pp. 7-9.

[43] *Transfer of United States Technology*, op. cit., pp. 158-59.

SUMMARY AND CONCLUSIONS

Since 1979 both the Carter and Reagan administrations have significantly tightened national security controls on exports to the Soviet Union and employed a number of controversial foreign policy controls in response to Soviet actions. Particularly controversial were the grain embargo and the expanded controls on oil and gas equipment. The former led to passage of legislation to prevent agricultural commodities from being singled out for use as a foreign policy tool and to guarantee the sanctity of agricultural export contracts.

The latter elicited strong negative reactions both at home—in Congress and in the business world—and abroad.

Allied support for the new U.S. policies has been mixed. The allies pledged not to take commercial advantage of the U.S. restrictions on grain and high technology. However, increased exports of grain and the fact that European companies obtained several major contracts that U.S. companies were barred from fulfilling have led many observers to conclude that Europe and Japan are following a policy of "business as usual." Allied support for tighter CoCom controls is said to be growing, but many remain skeptical of the prospects for timely or comprehensive results.

Another major development has been a renewed focus on the enforcement of export controls. This concern was reflected in the Export Administration Amendments Act of 1981, and in efforts by the Reagan administration to improve compliance and to persuade other members of CoCom to make similar efforts. Extensive criticism has been directed at DOC, which has primary responsibility for enforcement and compliance, and increased attention is now being devoted by the Customs Service to export licensing violations. The implications of these events for the U.S. economy, its political relations, and its national security position are discussed in the chapters which follow.

CHAPTER IV

The Impact of Export Administration Policy on the U.S. Economy

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CHAPTER IV

The Impact of Export Administration Policy on the U.S. Economy

The volume of U.S. trade with the Soviet Union is small. Its role in the U.S. economy is not well understood, and assessments of its impact and importance have been controversial. This impact cannot be measured solely through balance-of-trade statistics. Important components of the foreign trade balance sheet are indirect and unquantifiable, and weighing their importance relative to the political and national security consequences of trade is a highly subjective matter. This chapter attempts no such cost/benefit analyses. Rather, it identifies the direct and indirect effects on the U.S. economy of trade with the U.S.S.R. and discusses the economic consequences of the implementation of U.S. export control policies under the 1979 Export Administration Act.

U.S.-SOVIET TRADE, 1979-82

Trade with the Soviet Union has never constituted a major share of U.S. foreign trade. As table 5 indicates, the absolute level of this trade and its percentage of total U.S. trade are both small. Even including all of Eastern Europe, since 1978 the Soviet bloc has never accounted for more than $5.7 billion or 3.2 percent of U.S. exports and $1.9 billion or 0.9 percent of U.S. imports. Most of this trade has been conducted with the U.S.S.R., and the vast majority of U.S. exports here have consisted of agricultural commodities. This is illustrated in table 6.

These trade levels are the result of both U.S. and Soviet policies. As *Technology and East-West Trade* discusses in detail, trade with the industrialized West has always played a rela-

Table 5.—U.S. Trade With the U.S.S.R. and Eastern Europe, 1978-82 (millions of U.S. dollars)

	1978		1979		1980		1981		1982	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
U.S.S.R.	2,249	540	3,604	873	1,510	453	2,339	347	2,589	228
Bulgaria	48	19	56	35	161	25	258	34	106	28
Czechoslovakia	105	58	281	51	185	66	82	67	84	62
East Germany	170	35	346	36	477	44	296	48	223	54
Hungary	98	68	78	112	79	107	77	129	68	133
Poland	677	439	786	426	710	417	681	365	293	212
Romania	317	347	500	329	720	312	504	560	223	348
Total	3,665	1,507	5,651	1,863	3,843	1,424	4,237	1,550	3,585	1,065
U.S. World Trade	141,228	176,052	178,798	210,286	216,762	245,262	228,961	260,982	207,158	243,952
Trade with Soviet bloc as percent of total trade										
Exports (%)	2.6		3.2		1.8		1.9		1.7	
Imports (%)	0.9		0.9		0.6		0.6		0.4	

NOTE: Columns may not add to totals due to rounding. Domestic exports on an f.a.s. basis and general imports on a customs-value basis.

SOURCE: U.S. Department of Commerce, International Trade Administration and Bureau of the Census

Table 6.—U.S. Exports to the U.S.S.R., 1978-82 (millions of U.S. dollars)

Year	Total	Agricultural	Percent agricultural
1978	2,249.0	1,686.6	75
1979	3,603.6	2,854.9	79
1980	1,509.7	1,047.1	69
1981	2,338.6	1,665.0	71
1982	2,589.1	1,855.0	72

SOURCE: U.S. International Trade Commission and Department of Agriculture.

tively minor role in the Soviet bloc, where overall levels of East-West trade have been kept artificially low as a matter of policy. On the other side, the United States has captured only a small share of this already limited market.

Thus, as figure 1 demonstrates, although the U.S. share in trade with the Soviet bloc has grown about twelvefold since 1969, it has never amounted to more than 15 percent of the Organization of Economic Cooperation and Development's (OECD) exports to or imports from this region. This is partly because Japan and the countries of Western Europe have traditionally been active trading nations (the United States has not) with historical trading ties to Eastern Europe and Russia. Equally, if not more, important is the fact that for both political and economic reasons Japanese and West European governments have pursued policies designed more to encourage than to inhibit trade with the Soviet bloc. The same cannot be said of the United States.

Technology and East-West Trade identified three factors which have constricted U.S. trade with the Soviet Union:

- lack of official credits and guarantees to finance U.S. exports,
- lack of normal trading relations such as extension of most-favored-nation status (MFN), and
- U.S. export controls.

In OTA's judgment, the first of these was the most important:

> [T]he primary obstacle to rapid growth of trade with the communist world is the communists' inability and/or unwillingness to export on a competitive basis to Western markets. Consequently, a shortage of hard currency inhibits communist imports from the West. Credits that supply hard currency would attack this shortage directly; extension of MFN would facilitate some communist exports; direct export controls are significant only in certain industries to which communist nations accord priority in their allocation of hard currency (e.g., computers or oil extraction technology in the case of the U.S.S.R.)[1]

While this observation still holds true, the events of the past few years have shown that use of export controls can make significant inroads into even the existing low levels of U.S.-Soviet trade. This fact is dramatically illustrated in tables 5 and 6. The decline of U.S.-Soviet trade and U.S. market shares in 1980 was the direct result of the grain and technology embargoes imposed after the invasion of Afghanistan. Interestingly, the lifting of most of these sanctions has not resulted in recovery above 1979 levels. This reflects worldwide recession and the persistence of some U.S. trade controls, but it also may be at least partly due to the U.S.S.R.'s finding temporary or permanent alternative suppliers for the grain and equipment it had purchased from the United States. In any case, the U.S. Department of Commerce (DOC) anticipates that U.S.-Soviet trade flows in 1983 will not increase over 1982 levels. DOC projects U.S. exports of some $2.8 billion, of which $1.9 billion will be agricultural goods.[2]

It is apparent that U.S. exports to the U.S.S.R. are far too small in the aggregate to have a significant direct impact on the American economy. One view of the policy consequences of this fact has been expressed by Herbert Stein of the American Enterprise Institute in Washington, D.C.:

> Everything that needs to be said on this subject [of U.S. trade with the Soviet bloc] can be said in a few words. U.S. trade with the

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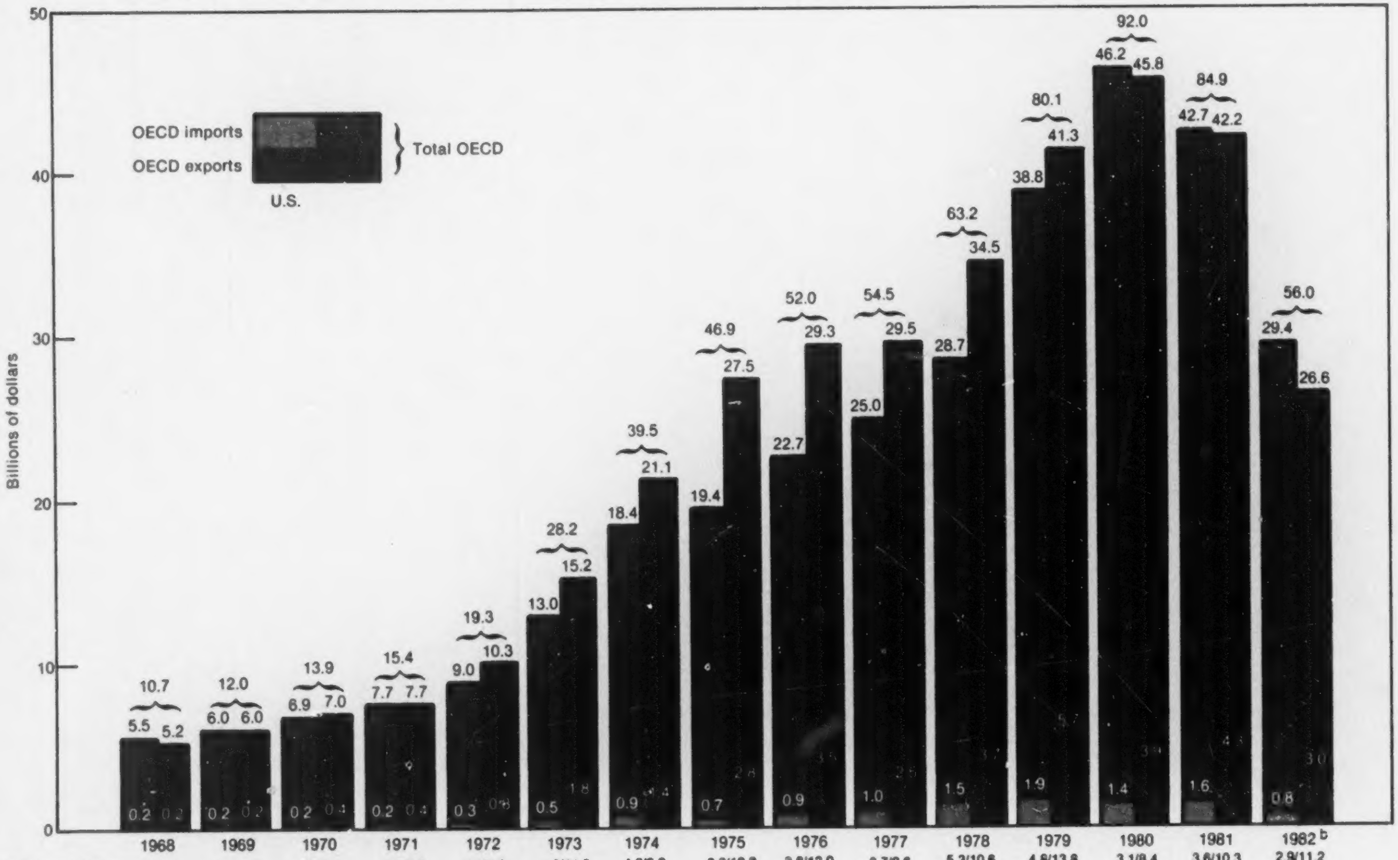
[1] *Technology and East-West Trade* (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-ISC-101, November 1979), pp. 5-6.

[2] William Cooper, "Modest Trade Growth May Follow Lifting of Sanctions," *Business America*, Feb. 21, 1983, p. 21.

Figure 1.—OECD Countries' Trade With Soviet Union and East European CMEA[a] and U.S. Share



NOTE: % U.S. imports/exports 3.6/4.2 3.3/4.2 3.3/5.1 2.9/5.0 3.6/7.9 4.0/11.8 4.8/6.8 3.8/10.2 3.8/12.0 3.7/8.6 5.3/10.6 4.8/13.8 3.1/8.4 3.6/10.3 2.9/11.2

[a] Exports f.o.b. Imports c.i.f. except for U.S., Canadian, and Australian imports, which are f.o.b.

[b] *Jan.-Sept. only.* Calculated from monthly average data from OECD.

SOURCE: U.S. Department of State, Bureau of Intelligence and Research, *Trade Patterns of the West*, various issues and OECD, Monthly Statistics of Foreign Trade, Series A, January 1983.

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Soviet bloc—whether we have it or do not have it, whether we interrupt it in whole or in part; or make it contingent on political events —is of trivial economic consequence to the United States. If there is anything we can do with this trade that is of even slight value to the U.S. security or U.S. foreign policy, we should not be deterred by fear that it will damage the U.S. economy significantly.[3]

This position gives secondary weight to two kinds of economic impacts. First, exports can be of small significance to the economy as a whole, but nevertheless highly important to specific sectors of that economy—i.e., the agricultural sector—or to particular industries, or firms within those industries. Second, there are subtle and less quantifiable indirect impacts of the expansion or contraction of U.S. trade with the U.S.S.R. that are felt on both the micro and macro levels. These, as well as the direct impacts, are discussed below in the context of identifying potential costs to the U.S. economy of the export control policy pursued by the present administration.

IMPACT OF FOREIGN POLICY CONTROLS ON THE U.S. ECONOMY

Chapter III has discussed some of the consequences for the U.S. economy of the various trade sanctions imposed on the U.S.S.R. under the Carter and Reagan administrations. With two exceptions, much of this information is sketchy and many of the individual impacts seem minimal. The exceptions are discussed in this section—the impact on the U.S. economy of the partial grain embargo of 1980 and of the 1982 foreign policy controls on oil and gas equipment and technology.

GRAIN

Estimates of the impact of the grain embargo vary widely. According to one view, the embargo caused "only rather modest damage to producers and exporters here in the United States."[4] This analysis does not challenge the fact that U.S. grain producers and exporters were hurt in 1980 and 1981, but argues that other factors, such as inflation, high fuel costs, sluggish demand, and high interest rates, were more important causes than the embargo. In this view, the embargo resulted in a rearrangement of trading patterns in grain, which "nullified" the embargo's impact on both the United States and the Soviet Union. While the U.S. share of the Soviet market declined, its share of the world market was actually 2 percentage points higher in the 1980-81 marketing year than in the year preceding the embargo. Quite a different picture of the embargo's impact emerges from other studies.[5] One estimates that direct costs and losses to the United States can be counted in billions of dollars and include lost output of goods and services, employment losses, and the cost to the Government of assuming contracts and acquiring and storing agricultural commodities.

Another way of assessing the economic costs of the grain embargo is through its relative impact on the United States and the U.S.S.R. Some argue that the embargo was a failure because it inflicted larger costs on the United States than on the Soviet Union. Still others believe that there was little impact on either country. These analyses are complicated by the multiplicity of factors influencing Soviet meat production and U.S. farm income.

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[3] U.S. Congress, Senate Committee on Foreign Relations, Subcommittee on International Economic Policy, *Economic Relations with the Soviet Union*, hearings, 97th Cong., 2d sess., July 30, Aug. 12-13, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982), p. 199.

[4] "Statement of Robert L. Paarlberg, Assistant Professor, Political Science, Wellesley College," in U.S. Congress, Senate Committee on Agriculture, Nutrition, and Forestry, Subcommittee on Foreign Agricultural Policy, *Economic Impact of Agricultural Embargoes*, hearings, 97th Cong., 2d sess., Feb. 3 and 5, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982), pp. 23-24.

[5] "Effects of the 1980 and 1981 Limitations on Grain Exports to the U.S.S.R. on Business Activity, Jobs, Government Costs, and Farmers," in the above, prepared by Schnittker Associates, pp. 113-125.

It is generally accepted that the impact of the embargo on the Soviet Union was not as great as the Carter administration predicted, but disagreement on the actual impact persists. The view prevalent in the Reagan administration and among agricultural specialists is that the Soviet Union was able to substantially offset the impact of the embargo by importing more grain from other sources, using substitutes for feed grain, drawing down grain reserves, and importing record quantities of meat. In contrast, the Carter administration, the State Department, and others, held that the embargo **did** impose significant costs on the Soviet Union. Since most protagonists rely heavily on the same U.S. Department of Agriculture (USDA) statistics, any assessment of this issue rests on the definition of "significant."

Before the embargo, USDA had estimated that the Soviet Union would respond to the poor 1979 harvest by importing 34 million metric tons (MMT) of grain (25 MMT from the United States and 9 MMT from other countries) during the 1979-80 marketing year and drawing 16 MMT of grain from its own grain stocks. In January 1980, USDA forecast that the embargo would deny the Soviet Union 11 MMT of U.S. grain, but that 2 MMT could be replaced from other sources. The resulting decline of 9 MMT in imports would lead to a decrease of about 6 MMT or 5 percent in Soviet feed grain usage and the drawing of an additional 3 MMT out of reserves.[6] Administration officials also foresaw distress slaughter of livestock, which would result in temporary increases in meat supplies, but would yield to significant declines in meat production and consumption.

This scenario proved incorrect. Soviet grain imports reached a record 31 MMT during the marketing year, leaving a gap of about 3 to 6 MMT, depending on how intended Soviet imports are estimated.[7] In sum, the Soviet Union replaced about half of the grain embargoed by the United States during the first half of 1980 and virtually all of the embargoed grain during the second half of the year.[8] The additional sales by other nations were considered "in accordance with the countries' statements of cooperation."[9]

The embargo did not result in distress slaughter. In fact, Soviet livestock inventories were higher on January 1, 1981, than the year before, although the rate of inventory growth was smaller. Meat production in 1980 was 15.1 MMT or 2.6 percent lower than in 1979. Some attribute the decline in whole or in part to the embargo. Others have concluded that the decline was "simply the continuation of a trend already in progress."[10] In any case, the Soviets acted to offset the decline in production by importing a record 700,000 tons of meat in 1980,[11] maintaining but not increasing per capita consumption.

Supporters of the grain embargo have argued that the Soviet Union had to pay as much as a $1 billion premium for the grain it replaced. Others have noted that any premium prices were largely offset by lower prices paid for part of the grain imports. In addition, the U.S.S.R. incurred unquantifiable costs through inconvenience and disruption of shipping schedules. While conceding that the U.S.S.R.

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[6] U.S. General Accounting Office, *Lessons To Be Learned From Offsetting the Impact of the Soviet Grain Sales Suspension*, July 27, 1981, pp. 46-47.

[7] The gap is 6 MMT if USDA's revised estimate that the Soviets intended to import 37.5 MMT is accepted. But many analysts view it as too high. Their estimates of the import gap range from 2.5 to 4 MMT. See, for example, U.S. Department of Agriculture, Economics and Statistics Service, *The U.S. Sales Suspension and Soviet Agriculture: An October Assessment*, Supplement 1 to WAS-23, prepared by Angel O. Byrne and Anton F. Malish, Washington, D.C., p. 12; and Robert L. Paarlberg, "Lessons of the Grain Embargo," *Foreign Affairs*, vol. 59, No. 1 (fall 1980), p. 155.

[8] "Statement of Hon. John R. Block, Secretary, U.S. Department of Agriculture," in *Economic Impact of Agricultural Embargoes*, op. cit., p. 67.

[9] Cited by GAO in *Lessons To Be Learned*, op. cit., p. 49. USDA estimated that the participating countries (Argentina, Australia, Canada, and members of the European Economic Community) would have sold 9.5 MMT absent the embargo. But, actual sales were 13.4 MMT during the 1979-80 marketing year.

[10] *Economic Impact of Agricultural Embargoes*, op. cit., p. 23.

[11] *Lessons To Be Learned*, op. cit., p. 49.

did have to arrange for imports from a large number of suppliers, which disrupted shipping schedules and caused port congestion, and had to purchase nontraditional feeds, critics of the embargo do not consider the inconvenience a major cost to the Soviet Union.

Similarly divergent assessments exist of the embargo's impact on the United States. After the announcement of the embargo, prices for wheat, corn, and soybeans declined, recovering to preembargo levels only some 9 months later. Farm income also declined during 1980.[12] The main disagreement centers around the question of how much of these declines are attributable to the embargo, and how much to other factors such as high interest rates and increased costs of fertilizer and other inputs. The price support program and the drought during the summer of 1980 also put upward pressure on prices.

The General Accounting Office has concluded that the variety of variables precludes accurate measurement of the impact of the embargo or of the price support program on prices.[13] But farmers and farm organizations generally single it out as the major cause of declines. Secretary of Agriculture John R. Block described the impact of the embargo in similar terms:

> . . . the United States paid a heavy price. An immediate result of the embargo was a sharp decline in grain prices and U.S. farmers continue to suffer to a certain degree from these losses, and the market uncertainty that followed. This contributed to a decline in net income already underway largely because of inflation in producer costs and higher interest rates.[14]

Others downplay the embargo's effect. Former Secretary of Agriculture Robert Bergland has told Congress that the embargo had a "relatively small" impact on farm income compared with other factors influencing supply and demand. He estimated that due to the Government's price support program gross farm income declined by only 0.5 percent.[15]

The price support program added slightly more than $2 billion to the Federal budget. This is a readily identifiable cost to the United States, though it is not a final estimate since the Government still holds grain acquired through the price support program.[16] Another cost of the embargo is the decline in the U.S. share of the Soviet market (see table 7).

There is virtually no disagreement that where the United States was once the U.S.S.R.'s preferred supplier, it has now been relegated to a residual position. But while most observers consider U.S. losses a gain for other grain-exporting nations such as Argentina, Canada, Australia, and members of the European Economic Community, an alternative interpretation is that, since Soviet purchases are often unpredictable and sometimes market-disrupting, the lost share of the Soviet market could actually benefit the United States, as long as the United States retains its share of the world market.[17]

Most critics of the embargo view its consequences as potentially more serious in the long term than in the short term. They argue that

Table 7.—U.S. Share of Soviet Imports of Wheat and Coarse Grains

Year	United States (million metric tons)	Total (million metric tons)	U.S. share (percent)
1972-73[a]	13.7	22.5	60.9
1973-74	7.9	10.9	72.5
1974-75	2.3	5.2	44.2
1975-76	13.9	25.7	54.1
1976-77	7.4	10.3	71.8
1977-78	12.5	18.4	67.9
1978-79	11.2	15.1	74.2
1979-80	15.2	30.4	50.0
1980-81	8.0	34.0	23.5
1981-82	15.3	45.0	34.0

[a] July-June marketing year.

SOURCE: Wharton Econometric Forecasting Associates.

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[12] *Assessment of Afghanistan Sanctions*, op. cit., pp. 45-46.

[13] *Lessons To Be Learned*, op. cit., p. 8.

[14] *Economic Impact of Agricultural Embargoes*, op. cit., pp. 67-68.

[15] U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, *Suspension of United States Exports of High Technology and Grain to the Soviet Union*, hearings, 96th Cong., 2d sess., Aug. 19 and 20, 1980 (Washington, D.C.: U.S. Government Printing Office, 1980), p. 108.

[16] *Economic Impact of Agricultural Embargoes*, op. cit., p. 71. (Cost figure supplied by Secretary Block.)

[17] Ibid., pp. 24-25.

it has given the United States the reputation of being an unreliable supplier, and that other countries are now doubtful of the certainty of U.S. agricultural supplies. For instance, Mexico, which signed a grain supply agreement with the United States in 1980, is reportedly now considering signing long-term supply agreements with other countries.[18] In addition to seeking alternative sources of supplies, importing countries may also be encouraged to become more self-sufficient in grain or find substitutes.[19] Another potential longrun impact is increased production in other grain-exporting countries. U.S. competitors may have already increased plantings as a direct response to the embargo.[20]

OIL AND GAS EQUIPMENT AND TECHNOLOGY

Assessment of the cost to U.S. firms of this set of sanctions must take into account the fact that the controls were applied both retroactively and extraterritorially—i.e., they abrogated contracts which had been concluded and which were permitted under general or validated export licenses, and they applied to the exports of foreign subsidiaries and licensees of U.S. firms.

One way of measuring the direct cost of retroactive sanctions is to assess the value of canceled contracts in terms of both revenues and jobs. This kind of analysis was provided to the Subcommittee on International Economics of the Senate Committee on Foreign Relations, by the Caterpillar Tractor Co., which compiled lists of lost revenue, cancellation charges, and employee layoffs incurred by its subcontractors due to the Government sanctions imposed on technology and equipment exports to the U.S.S.R. in December 1982. Presumably data of this kind from a number of companies was compiled to reach the U.S. Government's official estimate that the controls on oil and gas equipment and technology sales to the U.S.S.R. would probably cost U.S. firms $300 million to $600 million in exports over 3 years.[21] This amount may be insignificant spread over the economy as a whole; it is more significant when concentrated in a small number of firms in a few industries.

Retroactive sanctions impose at least two additional costs on the U.S. economy, made no less real by the fact that it is difficult or impossible to quantify them. First is the cost of foregone future transactions, one result of the reputation of unreliability, which can hardly fail to remain with exporters who may be ordered by their government at any time to

Photo credit: TASS from © SOVFOTO

U.S. pipelaying equipment used in the construction of the Northern Lights gas pipeline abrogate legal contracts. In the view of one lawyer studying this subject, the practice of interfering with exports can cause serious disruptions in the buyer-seller relationship:

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[18] "Statement of Dr. Michael L. Cook, Executive Director, Market Research and Development, FAR-MAR-CO," in *Economic Impact of Agricultural Embargoes*, pp. 11, 20.

[19] Ibid., pp. 12-13.

[20] See, for example, testimony by Cook and Block in ibid., pp. 12, 75-76.

[21] "Prepared Statement of Hon. Lionel H. Olmer," in *Economic Relations With the Soviet Union*, p. 11.

> Since major export sales often lead to and grow out of long-term business relationships, the confidence of both buyer and seller is required. To the extent foreign purchasers believe that the United States has adopted a policy of prohibiting or restricting exports for political reasons, they may come to think of American firms as unreliable suppliers and may consequently consider third country or domestic suppliers more favorably. Even if alternative products are more expensive or of poorer quality, concern over American export policy can render them equivalent in the minds of buyers. Although the effect may be more pronounced in nations already subject to some controls and aware of the danger, it may be felt in any nation that fears becoming a target of future controls. Further, because the United States seeks to regulate reexports of its products and technical information and even of the goods made with the use of controlled information, major American trading partners may begin to seek alternate supply sources for sensitive products and technologies, even for benign products to be exported to sensitive areas, all to avoid the interference of American reexport controls. Any permanent diversion of trade brought about by such concerns could profoundly affect the relative economic and political power of the United States.[22]

This erosion of market share has taken place with grain exports. Examples can also be found of U.S. equipment for which presumably permanent alternative suppliers have been found. Prominent here is the case of Caterpillar pipelayers. Prior to the first U.S. export controls on oil and gas equipment and technology imposed by President Carter in 1978, Caterpillar had captured 85 percent of the lucrative Soviet market for pipelaying machinery. The Japanese firm Komatsu had 15 percent of the market. Today, Caterpillar contends, these figures have been exactly reversed. In response to Soviet demand for a reliable supplier of equivalent equipment, Komatsu has added capacity. This, together with aggressive pricing and credit policies, has led to the Japanese developing into serious competitors. In March 1983 Komatsu announced that it had won an order to supply 500 pipelayers worth $210 million to the U.S.S.R. Caterpillar expects its market share to be permanently affected.

The second indirect cost of retroactive controls is even less tangible. It has to do with the chilling effect such sanctions could have on the climate in which U.S. firms operate and on the business decisions they may feel compelled to make:

> Concern over possible interruption of future transactions influences American exporters as well as foreign purchasers. Entering a new export market is an expensive and lengthy process. Concern over possible future controls may make the risks attendant upon researching and preparing a market, building customer relationships, and negotiating sales too high, especially for new and smaller exporters. Exporters' concerns are heightened when licenses appear to be denied because a foreign policy gesture is needed, when controls are issued retroactively or without opportunity for prior public comment, and when licenses are suspended or revoked or consideration is publicly given to doing so. In the view of many in American business and government, such actions have already chilled the efforts of business to increase exports, offsetting governmental efforts to promote them.[23]

Extraterritorial sanctions give rise to further economic problems. DOC has estimated that the continuation of the expanded extraterritorial sanctions imposed by President Reagan in June 1982, could have cost the subsidiaries and licensees of U.S. firms as much as $1.6 billion in business with the U.S.S.R. over 3 years.[24] Again, these are presumably estimates of direct costs, measured in terms of canceled contracts. It is not known whether probable spinoffs to those contracts for maintenance, spare parts, follow-on, etc., are included in the estimate. But extraterritorial sanctions also inflict indirect costs.

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[22] Kenneth W. Abbott, "Linking Trade to Political Goals: Foreign Policy Export Controls in the 1970s and 1980s," *Minnesota Law Review*, vol. 65, No. 5, June 1981, pp. 827-828.

[23] Ibid., p. 829.

[24] Olmer, op. cit., p. 11.

Foremost among these is the potential effect of extraterritorial export controls on trade between the United States and Western Europe and Japan. This so-called West-West trade is many times more important to the U.S. economy than trade with the Soviet Union. Yet the sanctions may well have a long-term adverse effect on the U.S. reputation as a dependable business partner to countries other than the U.S.S.R.:

> Any company in the world considering the purchase of American technology as opposed to, say, Japanese technology, now has to think about the possibility that the U.S. Government at some point in the future for foreign policy reasons may undertake sanctions against that company to stop its exporting that product to some other country.[25]

The extremely broad scope of the sanctions, which left numerous unresolved legal and commercial problems in their wake, intensifies this problem.[26] As promulgated, the regulations which implemented the President's June 1982 embargo covered a wide variety of goods and services with no necessary connection to the United States or even to the West Siberian gas pipeline; and they entangled a wide variety of persons, entities and business relationships worldwide in a complex and largely untested portion of U.S. export control law. In the opinion of a lawyer who has studied these issues, the regulations were so drafted as to cover the following cases:

> [I]f a British bank—having no connection with the United States—had financed a German company's export of trucks with U.S.-origin tires to a subsidiary of the French Company, Creusot Loire, in Morocco (Creusot Loire being one of the blacklisted companies) to deliver heating oil to homes in Fez, Morocco, the British bank, the German company, and the French company could have been in violation of U.S. law. By the same token, if a U.S. company exported U.S.-origin sheet metal to John Brown in England, one of the blacklisted firms, for use in a refinery in China, the U.S. company, John Brown, and the Chinese refining enterprise could have been in violation of U.S. law.[27]

The revocation of the U.S. sanctions has mooted attempts in the courts to define their scope. Thus, the potential scale of the impact of U.S. export controls remains largely undefined.

It is, of course, disingenuous of U.S. firms to assert or imply that U.S. export control law is likely to be applied in cases like those outlined above. But it is similarly naive to deny that the possibility of such actions casts a pall over the conduct of international trade. The fact that the June sanctions evoked such an intense negative reaction in the United States and abroad argues that they struck close to the nerve in those areas of the economy involved in international trade. Multilateral deals are highly intricate, potentially involving multifarious second and third order relationships in several nations. Extraterritorial controls can therefore have many unanticipated and undesirable consequences as their impact spreads in a ripple-like effect to numerous and varied interested parties.

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[25] Edward A. Hewett, in *Economic Relations With the U.S.S.R.*, p. 60.

[26] This section is based on Stanley J. Marcuss, in Library of Congress, Congressional Research Service, *The Premises of East-West Commercial Relations: A Workshop Sponsored by the Committee on Foreign Relations, United States Senate* (Washington, D.C.: U.S. Government Printing Office, 1983), pp. 45-77.

[27] Ibid., p. 55.

SUMMARY AND CONCLUSIONS

Although the magnitude of U.S. trade with the U.S.S.R. has never been great enough to have a significant impact on the economy as a whole, it is economically significant in three respects. First, it can be extremely important to the strength or even to the survival of specific firms or product lines. Second, the indirect impacts of restricting East-West trade are potentially many times greater than the direct costs, depending on what restrictions are imposed and how they are implemented. Finally, East-West trade is not conducted in isolation; exporters are involved in a complex web of international commercial relationships. Government actions aimed at one part of these relationships risk damaging other aspects, and thereby inflicting unintended and unanticipated harm to the competitiveness of U.S. firms in international markets.

These effects are real, but they are largely unquantifiable. Assessing their importance relative to the political and military consequences of trade and export control is both subjective and controversial. As would be expected, the business and defense communities in the United States have taken opposite positions on the question of where the benefit of the doubt should lie—on the side of trade or the side of control. Although no such determination can be made here, it would seem that improving the predictability of export administration policy, regardless of the strictness or leniency of that policy, would go a long way toward ameliorating some of the negative impacts of U.S. export controls on the U.S. economy.

CHAPTER V

The Foreign Policy Implications of U.S. Export Administration Policy Toward the U.S.S.R.

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CHAPTER V

The Foreign Policy Implications of U.S. Export Administration Policy Toward the U.S.S.R.

One of the enduring debates in the area of American export administration policy has been over the propriety and effectiveness of using controls on trade as instruments of foreign policy. Chapter IV discusses the economic consequences of imposing such export controls. The purpose of this chapter is to examine this subject from another perspective, i.e., the foreign policy consequences for the United States of the actions taken in administering the 1979 Export Administration Act (EAA). The chapter focuses on the political impact on U.S. relations with its Western allies and with the U.S.S.R. of controlling exports to the Soviet Union.

U.S.-ALLIED RELATIONS[1]

It is by now commonplace to point out that America's CoCom allies in Western Europe and Japan have notions of the role, importance, and acceptable scope of trade with the Soviet Union which are different from the views prevailing in the U.S. Government. OTA addressed this issue in 1979 in *Technology and East-West Trade* and again in 1981 in *Technology and Soviet Energy Availability*. Since the publication of the latter report, the policies of America's allies toward trade with, and more particularly energy development in, the U.S.S.R. have come increasingly into the public spotlight. It would appear, however, that OTA's previous findings are still valid. These include the following:

- Trade with the U.S.S.R. has been far more important for the economies of most of America's CoCom allies than it has been for the United States.
- There is widespread skepticism in Europe and Japan over the utility of trade sanctions in achieving political objectives vis-à-vis the U.S.S.R.
- These nations, unlike the United States, consider trade with the U.S.S.R. a desirable element in their foreign and domestic economic policies, and they largely eschew the use of foreign policy controls for political purposes. Nor do these countries have national legislation comparable to EAA to provide legal mechanisms for such controls.
- The United States and its allies had different expectations from detente and therefore different evaluations of its results. In general, West Europeans have counted the gains of detente in terms of normal trading relationships and a continuing dialog with Moscow, both of which contribute to maintenance of the European status quo. In the case of West Germany, detente has also become a means of significantly improving relations with East Germany. Soviet activities in the Third World are seen as violations of an American-defined code of conduct, but not necessarily a breach of the U.S.S.R.'s detente commitments in Europe.

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[1] See Angela Stent, in Library of Congress, Congressional Research Service, *The Premises of East-West Commercial Relations: A Workshop Sponsored by the Committee on Foreign Relations, United States Senate* (Washington, D.C.: U.S. Government Printing Office, 1983), p. 153-164.

- Given the constraints under which it operates, CoCom works well. It is an effective mechanism for implementing national security controls in those areas where the members agree that such controls are necessary and effective. CoCom does not function well where this kind of consensus is lacking.
- All CoCom partners agree that exports to the U.S.S.R. of equipment and technology with direct military relevance should be controlled for reasons of national security, but the United States tends to favor a much broader interpretation of "military relevance" than its allies. Similarly, the European and Japanese definitions of "security" include an economic dimension which inclines them to view trade with the Soviet Union as a positive factor in East-West relations.
- Western Europe and Japan already import or plan to import significant quantities of Soviet energy. These countries view with apparent equanimity the quantum rise in the level of East-West energy interdependence which will result from the West Siberian gas pipeline project.
- West Germany, France, and Italy all consider importing Siberian gas a desirable way to increase and diversify energy supplies while simultaneously stimulating equipment and technology exports. The latter consideration is also important to Japan.
- Western importers of Soviet energy, particularly gas, are all mindful of the risks of energy dependence on the U.S.S.R. These countries have developed contingency plans in case of a cutoff of Soviet gas. The plans as they stand now appear inadequate to many U.S. observers; nevertheless, the nations involved believe that the potential benefits of importing Soviet gas outweigh the risks.

These views have persisted in Western Europe and Japan despite U.S. diplomatic efforts to change them. American critics of the policies of other CoCom nations have tended to view them as short-sighted and dangerous to the security of the alliance. Europeans in turn stress the failure of the United States to appreciate the extent to which their own conceptions of national security are influenced by their history and geography—particularly their export dependent economies and their proximity to the U.S.S.R. They also resent attempts by the United States to dictate what they see as matters of internal economic policy, and to take major foreign policy steps without consultation or even prior notification of the affected parties. The resulting case of mutual recrimination is well illustrated by the chain of events following the Versailles summit meeting.

DISAGREEMENTS OVER EAST-WEST TRADE POLICY

The declaration signed by the foreign ministers of the North Atlantic Treaty Organizations (NATO) at the close of the Versailles summit in June 1982 stated that the participating countries would approach East-West economic relations "in a prudent and diversified manner consistent with our political and security interests." The signatories also agreed to observe "commercial prudence" in granting export credits to the Communist world, and to exchange information on "all aspects of our economic, commercial, and financial relations with Warsaw Pact countries." This undertaking was clearly the result of U.S. initiatives. It is also clear that eliciting such a statement was a high priority with the U.S. delegation, which was troubled by the East-West economic policies of America's NATO partners, particularly those resulting in favorable credit terms for the U.S.S.R. (This subject is discussed in greater detail in the appendix.)

It took only about a week for the basic policy differences which lay behind this joint statement to manifest themselves. Immediately after Versailles, President Mitterrand denied that the declaration would affect France's credit policy vis-à-vis the U.S.S.R. This action effectively eliminated any impression of a unified Western commercial policy on East-West trade. The fact that the U.S. administration had publicly heralded the statement as just such a development made Mitterrand's announcement all the more disturbing, both as an apparent manifestation of the likely limits of good faith cooperation on East-West trade among the allies and as an indicator of the inability or unwillingness of the United States to accept and work within those limits.

There are several interpretations of the roots of the controversy which followed the Versailles declaration. To some it is an example of the propensity of European nations to pay lip service to policies they have no intention of carrying out. To others, it is an example of America's failure to accept European nations' views of their own political and security interests. According to this view, the contretemps arose over the simultaneous unwillingness of the French to appear to make public policy concessions in the face of U.S. pressure, and the failure of the United States to appreciate both the substantive limits to, and the public sensitivity of, the Versailles declaration in Europe.

Whatever the cause, the effect of this episode was to reveal an element of discord in alliance relations. The situation was seriously exacerbated by President Reagan's announcement, hard on the heels of Mitterrand's statement, that the United States would extend its foreign policy controls on oil and gas equipment exports to the U.S.S.R. retroactively and extraterritorially, i.e., to cover completed contracts for equipment produced overseas by subsidiaries and licensees of U.S.

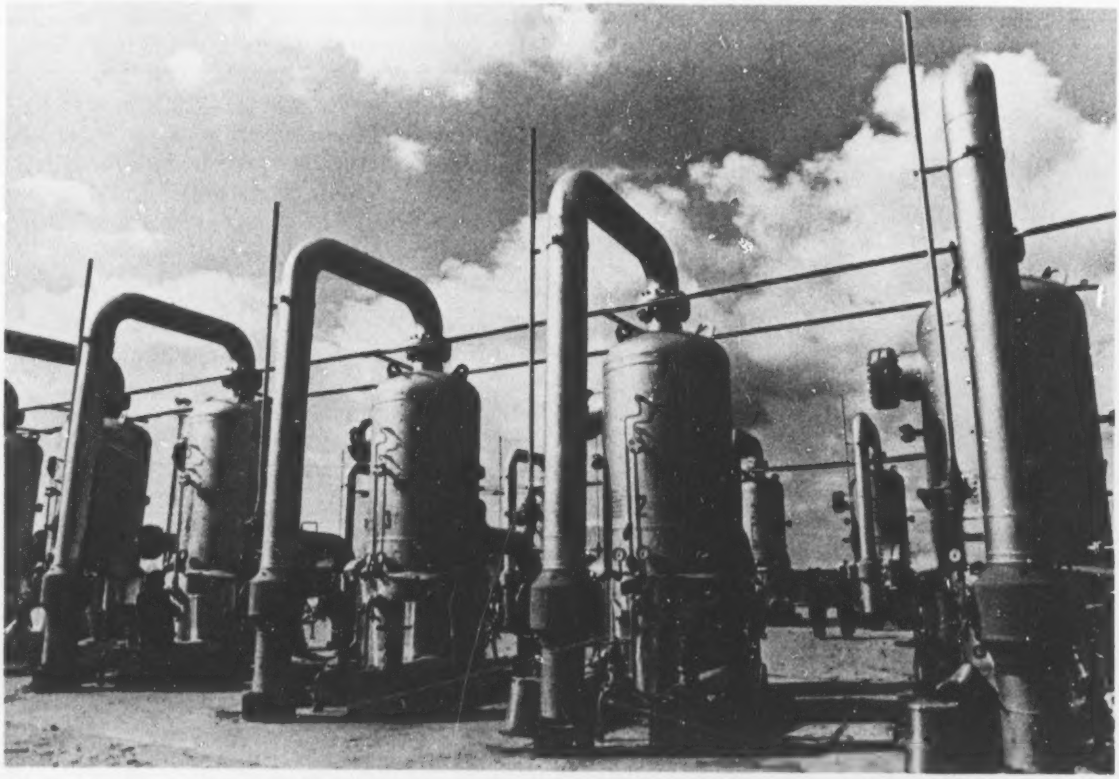

Photo credit: TASS from © SOVFOTO

Separation installations at a West Siberian gas compression station firms. (See chs. III and IV above.) European countries with firms affected by this order professed surprise. All reacted as if to a U.S. violation of their national sovereignty. Indeed, as noted in chapter III, the British and French Governments ordered the companies on their soil to disregard the American order and to fulfill their contractual obligations to ship the equipment to the U.S.S.R. in compliance with national laws. In addition, the European Economic Community strongly protested the U.S. action. Nevertheless, the United States imposed sanctions—in the form of orders denying the privilege of importing any U.S.-origin goods or technical data related to oil and gas exploration, production, transmission, or refinement—on the firms in England, France, West Germany, and Italy which had defied the U.S. embargo. Extensive as this ban was, it actually represented a relaxation of the Government's original order which would have prevented the export of all U.S.-origin goods and data to the affected companies.*

The resolution of this situation took nearly 5 months. In November 1982, President Reagan announced the lifting of the controls on oil and gas transmission and refining equipment. At the same time, he announced that the governments of the major West European nations, Japan, and Canada had agreed to conduct studies aimed at arriving at a common policy on major aspects of East-West trade: energy purchases from the Soviet Union, credit policies, and strengthened controls on strategic exports. The participants also agreed not to sign new contracts to purchase Soviet gas until the completion of the studies, a stipulation which is probably moot in any case, as the state of the world economy and energy markets has for the present significantly diminished West European demand for Siberian gas.

Some confusion still exists as to whether all parties explicitly committed themselves to undertake the studies as a public quid pro quo for the lifting of U.S. sanctions. Obvious as such an arrangement might have seemed to observers, the issue was still controversial enough within the French Government for it to later deny that it was a party to the agreement. However, the French are now participating in the studies.

COSTS AND BENEFITS OF U.S. POLICY

As in the aftermath of the Versailles summit, this episode is variously interpreted as an example of divisions within the French Government and/or French hypocrisy, or of U.S. maladroitness and insensitivity to European political reality. However one apportions the responsibility, it is another example of the basic lack of communication between the United States and its closest allies on an issue of vital importance to the continued viability of the alliance itself. Given these precedents and the residue of recrimination and ill will occasioned by the U.S. sanctions, it is reasonable to question the likelihood that a concrete and meaningful common policy on East-West trade will emerge from the studies, and to consider the political costs and benefits to the United States of its sanctions policy. Not surprisingly, there are widely divergent views on each of these points.

The studies announced in November 1982 are proceeding under four separate aegises. The Organization for Economic Cooperation and Development (OECD) is evaluating Western credit policies toward the U.S.S.R.; the International Energy Agency (IEA) is examining alternatives to Soviet energy for Western Europe; CoCom is considering proposals to strengthen its controls on strategic items and to add oil and gas equipment to the CoCom list; and an umbrella study, designed to coordinate the findings of the other groups and to add a strategic perspective, is going on under the direction of the Economic Secretariat in NATO. Major U.S. European allies and Japan are represented in OECD, IEA, and CoCom. Japan, while not a member of NATO, is participating informally in the latter exercise through a mechanism which allows it to observe or be briefed on the results of NATO meetings and to comment through a NATO member.

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*The firms were AEG-Kanis (FRG), Creusot-Loire (France), Dresser France, John Brown Engineering (U.K.), Mannesmann (FRG), and Nuovo Pignone (Italy).

Officially, the U.S. Government has hailed these studies as concrete evidence that the allies have "reached agreement on taking a firmer stance toward trade with the Soviet Union."[2] Indeed, the President made them the subject of his November 13 radio address to the Nation, declaring that the industrialized democracies had "reached substantial agreement on a plan of action." But this interpretation is not universal, even within the administration. Some observers familiar with the OECD study process are skeptical that OECD and IEA efforts will produce more than a reiteration of credit and energy studies already on the shelf. Indeed, given the time constraints and the sensitivity that this kind of multilateral study has engendered in the past, any other result would be remarkable. In addition, there are differing opinions as to when results can be anticipated and what form they will take. Some U.S. officials cite a May 1983 deadline for completion of the studies, set so that the conclusions and practical policy recommendations can be ready for the next summit, to be held that month in Williamsburg, Va. Others believe that only general or preliminary results will be ready in time for Williamsburg, with detailed findings to follow at some unspecified date. Still others doubt the subject will even be raised at Williamsburg.

Similarly, there has been no public formal commitment as to the status of the complete reports. They could be endorsed by the governments involved; or conclusions could appear in the name of the OECD and IEA Directorates. The latter would obviously have a weaker impact. Nor is there general agreement on the question of what the studies will ultimately produce—concrete and specific "rules" to which sovereign governments will agree to adhere; nonbinding general guidelines; a basis for ongoing negotiations; or any combination of these.

Given the degree of confusion within the United States, it is also reasonable to anticipate differences among the other participants in their perceptions of the meaning and utility of these studies. The "worst case" outcome of this exercise is not that it will fail to produce new allied agreements or united policy initiatives on East-West trade. Rather, it is that continued lack of communication and persistent differences among the motives, intentions, and interests of the parties involved will lead to another public display of serious disagreement between the United States and its allies on the issue of policy toward the Soviet Union.

Just as the meaning and potential import of the forthcoming studies are debatable, so too is the evaluation of the political costs and benefits which have accrued to the United States in the wake of its trade policy. While it admits that the imposition of extraterritorial foreign policy controls had serious costs in terms of U.S.-allied relations, the administration contends that its policy of sending strong "signals" about U.S. resolve in the area of Soviet trade to Europe and Japan will lead to significant long-term benefits. These include causing real delay in the completion of the West Siberian gas pipeline; and precipitating a new awareness of the dangers of East-West trade in the Western alliance. Evidence of the latter, it is claimed, will be seen in future allied East-West trade policies, and is already manifest in a new cooperative spirit in CoCom, where U.S. efforts to strengthen the CoCom list are meeting with significant success.

Many informed observers interpret the progress in CoCom as being less the direct product of high-level reaction to U.S. "signals," than the outcome of carefully documented and highly technical cases, in which the United States has been able to demonstrate—with concrete evidence—that specific Western technologies have been used directly by the Soviet military in the production or deployment of weapons. In other words, when the United States "does its homework" and prepares a convincing case for a technology's having direct military utility, its allies are willing to listen. Their receptivity of course may have been heightened in the first place by their perceptions of a new strength of U.S. commitment to these issues. But this does not necessarily mean that the allies are willing to expand their own definitions of military relevance to the point desired by the United States. Thus, it is likely that battles will continue to be fought out in CoCom on a case-by-case basis and that progress will continue to be slow.

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[2] *Business America*, Feb. 21, 1983, p. 18.

The claim that U.S. actions effectively delayed the completion of the gas pipeline is more difficult to evaluate. There is intelligence information tending to support this claim. However, to anyone familiar with the inefficiencies inherent in the Soviet economic system and the poor Soviet track record for on-time completion of large projects, pipeline delays were inevitable—for a myriad of reasons having little or nothing to do with the U.S. embargo. It is, therefore, extremely difficult to isolate the impact of embargo-caused delays and distinguish these from the series of other problems which are probably plaguing the project. Moreover, delays in completion of the new pipeline will not necessarily affect Soviet ability to deliver increased quantities of gas to Western Europe through excess capacity in existing pipelines.

But even assuming that U.S. trade controls had a real incremental impact on the pipeline construction and gas delivery schedules, a disturbing question remains. In this case the U.S. Government's evaluation of what is best for West European security differs from that of the West Europeans themselves. The West German position, for instance, is that the pipeline is "a project considered by the Europeans to be reasonable and very important for their future."[3] On the other hand, the United States believes that European participation in the West Siberian gas pipeline project is, in the words of the former Under Secretary of State for Security Assistance, Science, and Technology, "ill-advised and potentially harmful to our joint security interest."[4] It would appear in this case that the United States has used its foreign policy controls on exports to the U.S.S.R. as much to inconvenience and modify the policies of its allies as to inconvenience or exact concessions from the Soviet Union. This is arguably a bad precedent for the conduct of U.S. foreign policy in general and for alliance relations in particular.

In the end, future allied trade relations with the U.S.S.R. are more likely to be shaped by domestic imperatives in Europe and Japan and worldwide economic forces than they are by U.S. concerns. There is no evidence that allied nations are about to renounce any of the fundamental beliefs about East-West trade presented at the beginning of this chapter. To the extent that retrenchment takes place, particularly in granting credits to or buying energy from the U.S.S.R., it will most likely in large part be due to the state of the world credit and energy markets.

U.S.-SOVIET RELATIONS

Several months after the passage of the 1979 Export Administration Act, the U.S.S.R. invaded Afghanistan and relations between the United States and the Soviet Union cooled markedly. The election of an administration with an avowedly "hard-line" stance toward the U.S.S.R. and events in Poland have conjoined to inhibit any noticeable improvement in U.S.-Soviet relations. The White House views export controls as important weapons in its foreign policy arsenal, and their use has accompanied the strained relationship between the United States and the Soviet Union. Opinions as to their effect on the U.S.S.R. and their effectiveness in furthering U.S. policy goals differ, however. The remainder of this chapter is devoted to examining these two aspects of U.S. trade policy, i.e., its economic impact on the U.S.S.R.; and the foreign policy costs and benefits which have accrued to the United States from its implementation.

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[3] Letter from the German American Chamber of Commerce to Sen. Charles McC. Mathias, in U.S. Congress, Senate Committee on Foreign Relations, Subcommittee on International Economic Policy, *Economic Relations With the Soviet Union,* hearings, 97th Cong., 2d sess., July 30, Aug. 12-13, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982), p. 69.

[4] "Statement of Hon. James F. Buckley," in the above, p. 15.

ECONOMIC IMPACT ON THE SOVIET UNION

At the heart of much of the controversy over the wisdom of controlling trade with the U.S.S.R. for reasons of foreign policy are differing evaluations of the strength of the Soviet economy; the degree to which the U.S.S.R. is dependent on Western exports for its economic development; and the maximum impact that denial of Western goods and technologies could have on the Soviets. One feature of the administration's view of the U.S.S.R. is that while it characterizes the Soviet military sector almost entirely in terms of its strengths, its characterization of the Soviet economy is almost always in terms of its weaknesses. Thus, William P. Clark has spoken of making the Soviets bear the brunt of their own economic failures. A few others have suggested that the U.S.S.R.'s economy could be "brought to its knees" by Western trade policies or even that economic pressure could force the collapse and eventual restructuring—along Western lines—of the entire economic system. The latter view seems to assume that political moderation inevitably follows the establishment of a free market economy, and therefore that it is not in the interests of the United States for the Soviet Union to improve its economic efficiency. This is a highly debatable point. Be that as it may, there is a substantial body of opinion which questions the factual premise on which all of these positions are based.

The views of the U.S. intelligence community are pertinent here. In a briefing before the Joint Economic Committee in December 1982,

Photo credit: Oil and Gas Journal

50-inch gas pipeline being laid in West Siberia the Central Intelligence Agency presented the following evaluation of the Soviet economy:[5]

- The Soviet economy is undeniably plagued with many problems, and Soviet economic performance can accurately be described as poor by Western standards and "deteriorating" in its own terms. Yet, an economic collapse—i.e., a sudden and sustained decline in Soviet GNP—is not "even a remote possibility."
- Despite the serious weaknesses inherent in the Soviet economic system, that system enjoys many strengths. Among these is the U.S.S.R.'s high degree of economic self-sufficiency.
- The U.S.S.R. is not autarkic. Western imports have relieved critical shortages, hastened technological progress, and generally improved economic performance. On the other hand, the U.S.S.R. does not depend on trade for survival and "the ability of the Soviet economy to remain viable in the absence of imports is much greater than that of most, possibly all, other industrialized economies. Consequently, the susceptibility of the Soviet Union to economic leverage tends to be limited."

This view weighs against the utility of broad policies of economic warfare, but it leaves room for the possibility of affecting the Soviet Union through well-targeted sanctions. Such a policy would be further supported by the work of the Wharton Econometric Forecasting Associates, which found that while in the aggregate the dependence of the Soviet economy on trade with the West is low, there nevertheless could be limited areas in which the Soviet economy is critically dependent on such trade.[6] Following this line of argument, one arrives at the position that through a carefully crafted policy of trade leverage, the United States could exert economic pressure on points of Soviet vulnerability and thereby exact changes in Soviet behavior.

The theory and practice of trade leverage or linkage are the subjects of widespread debate. The assumptions behind and past effects of this policy are discussed in detail in *Technology and East-West Trade* and *Technology and Soviet Energy Availability*. The conclusion of both reports is that first, it has yet to be convincingly demonstrated—indeed it would be virtually impossible to prove—that the U.S.S.R. has ever moderated its policies in response to threats or actual imposition of trade sanctions; and second, that in order for a policy of trade leverage to be effective, the United States would itself have to have either a virtual monopoly on the goods in question or to elicit broad cooperation from alternative suppliers willing to participate in the embargo. In other words, trade leverage can only work under very limited conditions and past precedents have demonstrated its weakness when used against the Soviet Union.

The aftermath of United States attempts to embargo exports of both grain and energy equipment to the U.S.S.R. (see chs. III and IV) dramatically demonstrate the limitations on U.S. power to successfully conduct a trade leverage policy. These embargoes were both directed at vulnerable areas of the Soviet economy. Soviet agricultural productivity is notoriously poor, and problems in this sector have been exacerbated by bad weather and a series of poor harvests. The pipeline is being built largely with imported Western equipment and its importance to Soviet economic plans in the 1980's can hardly be overestimated. Yet the results of U.S. embargoes in each of these areas are inconclusive at best. Many argue that both were failures, and according to this view, while the embargoes inflicted some costs on the U.S.S.R. (perhaps smaller costs than were inflicted on the United States), the Soviet Union has been able to pay these costs without changing its policies and without incurring serious or long-term damage to its economy. American grain has been replaced in the Soviet marketplace with grain from alternate suppliers. And despite the possibility that the United States may have caused some additional delays to the completion of the West Siberian gas pipeline, not even the most avid supporter of the pipeline embargo has suggested that the project will not be completed. U.S. sanctions and embargoes have hurt the U.S.S.R., but it is debatable whether they have hurt enough to make a real economic difference, at least in the short and medium term.

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[5] "Central Intelligence Agency Briefing on the Soviet Economy, Statement of Henry Rowen, Chairman, National Intelligence Council, Central Intelligence Agency, before the Joint Economic Committee, Subcommittee on International Trade, Finance, and Security Economics," Dec. 1, 1982.

[6] Reprinted in *Premises of East-West Commercial Relations*, op. cit., pp. 95-102.

POLITICAL COSTS AND BENEFITS

The economic impact on the U.S.S.R. of U.S. trade embargoes has been equivocal. However, there might still be a sense in which the United States could be said to have gained diplomatic or political benefits from its export control policies. Such advantages cannot be measured in terms of Soviet political concessions. The Soviet Union is still occupying Afghanistan; little or no progress has been made in Poland; and the situations with respect to dissidence and emigration have worsened. Indeed, the Andropov regime shows little signs of flexibility in any of the areas which have been cited by the United States as targets for its sanctions.

It has been argued that lack of Soviet movement in these areas in no way vitiates the effect of or importance of undertaking U.S. policies. It was vital that the United States display its concern over Soviet actions; indeed, it is impossible to imagine that the United States should not undertake some dramatic measures, short of military action, to assure the U.S.S.R. of its outrage. This argument raises several difficult questions: are trade sanctions appropriate means through which to show concern; should they be imposed even if there exists a danger that they will hurt the United States as much or more than they hurt the U.S.S.R.; and should they be imposed even if they risk damage to alliance relationships?

A variation of the "displaying concern" reasoning is that just as American actions have sent strong signals to the Western allies, so too the political utility of trade sanctions lies as much in the clear message of U.S. resolve that they convey to the U.S.S.R. as in precipitating measurable changes in Soviet behavior. According to this view U.S. policies can and should be judged according to their symbolic value. The impact of these symbolic actions has been mitigated by two factors, however: the messages sent to the U.S.S.R. have been unclear; and the U.S.S.R. may itself have benefited from the disruptions in the Western alliance precipitated by U.S. policies.

The first of these problems stems from the fact that the United States has sent the Soviet Union mixed messages. It has engaged in behavior that can be interpreted as inconsistent or unsustained—removing the grain embargo, for example; and it has not always made clear—to the Soviets, to the allies, or even to itself—the objectives of its policies. The latter point is illustrated by the fact that the gas pipeline sanctions have been justified at various times and by various Government spokesmen as being designed to:

- protest Soviet responsibility for the declaration of martial law in Poland;
- prevent West European dependence on Soviet gas; or on steel and equipment exports to the U.S.S.R.;
- damage—or at least not aid—general Soviet economic development by inhibiting a project of great economic importance;
- deny the U.S.S.R. hard currency earnings from gas sales in Europe; or
- protest the use of "slave labor" in pipeline construction.

These are very different goals. Yet, if the success of a policy rests on its symbolic message, its impact may be weakened when the message itself is unclear.

The extent of the second problem can only be determined in the context of one's estimation of the value which the U.S.S.R. places on driving wedges between the United States and other members of the Western alliance. If an important Soviet political goal is to generate as much divisiveness as possible among NATO partners, and to encourage the West

Europeans and Japanese to depart from U.S. policies on East-West relations, then it could be argued that the gas pipeline embargo was a welcome political windfall for the U.S.S.R. This charge has in fact been made by opponents of the administration's policy in Congress, in the business community and, privately, in the executive branch. A counterargument is that any such damage was superficial, illusory, and/or short term. In this view, the West is going through a necessary, albeit painful, reevaluation which will eventually result in a stronger and more unified front vis-à-vis the U.S.S.R. This position effectively postpones judgment of the effects of U.S. policies to the indeterminate future.

In the final analysis, each of the positions described here rests as much on fundamental beliefs as it does on empirical evidence. Each is shaped as much by the world view of its holders as by objective weighing of the economic, political, military costs, and benefits of alternative policies. Those who believe that the United States and Soviet Union are destined to remain implacable enemies, that military conflict is probably inevitable, and/or that it is primarily the threat of retaliatory force which restrains Soviet aggression are likely to judge that the benefits of U.S. policies have outweighed the costs. Those who believe that the United States can and must learn to live with a strong Soviet Union, and that the U.S.S.R. is best restrained by being drawn into normal relations with the Western world are more likely to look askance at the utility of trade sanctions in moderating Soviet behavior.

SUMMARY AND CONCLUSIONS

The past few years have seen an increasing amount of attention accorded to the use of export controls as instruments of U.S. foreign policy. The controversy over the propriety and effectiveness of such controls escalated markedly in 1982, when the U.S. Government applied them extraterritorially and thereby attempted to obtain the participation of West European firms in actions to which their governments did not acquiesce. The outcome of U.S. policy has still to be finally assessed. In the short term, alliance relations appear to have been damaged while the U.S.S.R. seems little affected. Prospects still exist for longer term benefits—including the achievement of a unified Western policy on trade with the Soviet Union—but these prospects must be tempered by the persistence in Western Europe and Japan of notions of the role, importance, and acceptable scope of Soviet trade which are fundamentally different from those prevailing in the U.S. Government.

CHAPTER VI

The National Security Implications of Export Administration Policy

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CHAPTER VI

The National Security Implications of Export Administration Policy

In *Technology and East-West Trade*, OTA concluded that although Western technology has undoubtedly contributed to Soviet military capabilities, precise determination of the magnitude and significance of such contributions is impossible. The study asserted that the Soviet Union will probably continue to benefit militarily from Western technology regardless of unilateral efforts on the part of the United States.[1] There were two grounds for this expectation. First, the United States no longer holds a technological monopoly, or even necessarily a significant technological lead, in many important areas. In fact, in some cases—fiber optics or robotics—the United States actually trails other industrial nations. Second, the very nature of technology is such that its dissemination is inevitable. Western policies can affect the volume, rate, and cost of dissemination, but not the spread of technology itself.

The present administration has sought to focus public attention on the magnitude of the Soviet military threat and the role of Western technology in contributing to this threat. But debate persists over the identifiable impact of Western technologies on Soviet military prowess, and over the measures that can or should be taken to minimize this impact. The purpose of this chapter is to reexamine the relationship between Western technology and Soviet military capabilities in light of new evidence of Soviet military use of Western technology; and to discuss the legislative implications of this relationship.

AMERICAN TECHNOLOGY AND SOVIET MILITARY CAPABILITIES

Early in 1981, the U.S. Central Intelligence Agency (CIA) began assembling information on selected Soviet military developments, which could be directly linked to acquisitions of Western technology. At roughly the same time, Senator Sam Nunn, with the concurrence of Senator William V. Roth, instituted a related investigation by the Permanent Subcommittee on Investigations of the Senate Committee on Governmental Affairs. The subject of this investigation was the ability of the executive branch to enforce export controls on transfers of high technology to the Soviet bloc. In April 1982, an unclassified version of CIA's findings was published under the title, "Soviet Acquisition of Western Technology." In May, the Subcommittee held hearings on its own findings[2] and Admiral Bobby Inman, then Deputy Director of CIA, testified for the Agency. CIA asserted that:

> The Soviets and their Warsaw Pact allies have derived significant military gains from

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[1] *Technology and East-West Trade*, ch. V (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-ISC-101, November 1979).

[2] See U.S. Congress, Senate Committee on Governmental Affairs, Permanent Subcommittee on Investigations, *Transfer of United States High Technology to the Soviet Union and Soviet Bloc Nations*, hearings, 97th Cong., 2d sess., May 4, 5, 6, 11, and 23, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982) and U.S. Congress, Senate Committee on Governmental Affairs, Report No. 97-664, Nov. 15, 1982 (Washington, D.C.: U.S. Government Printing Office, 1982).

their acquisitions of Western technology, particularly in the strategic, aircraft, naval, tactical, microelectronics, and computer areas. This multifaceted Soviet acquisitions program has allowed the Soviets to:

- Save hundreds of millions of dollars in R&D costs, and years in R&D development lead time . . . .
- Modernize critical sectors of their military industry and reduce engineering risks by following or copying proven Western designs, thereby limiting the rise in their military production costs.
- Achieve greater weapons performance than if they had to rely solely on their own technology.
- Incorporate countermeasures to Western weapons early in the development of their own weapon programs.

These gains are evident in all areas of military weapons systems.[3]

According to the CIA, the U.S.S.R. has obtained these militarily significant technologies by both legal and illegal means, ranging from the collection of open Western scientific literature to outright industrial espionage and theft of classified documents.

These findings have important implications for the legislative concept of military risk (discussed below). Compelling as the CIA and Subcommittee evidence is, however, two additional factors must be pointed out:

- First, although the U.S.S.R. has undoubtedly realized savings from pursuing the strategy of a "technology follower," nowhere has it been demonstrated that it has obtained any technology from the West which it could not have developed itself, given adequate incentive and resources.
- Second, a significant consequence of relying on theft or illegal purchase for technological advances is that the recipient is in a relatively poor position to capitalize fully on the acquisitions. This is both because it is far less efficient to utilize "passive" than "active" transfers of technology (especially those requiring reverse engineering); and because, having made a technological advance through a method which bypasses the establishment of an R&D base or an ongoing vendor relationship, the offender must continue to rely on expensive and risky illegal tactics to make most further advances. For example, if the U.S.S.R. steals plans for an American weapon, not only must it develop its own complex system of operational support, but it will not necessarily have built the R&D base necessary if it is itself to build the next generation of the weapon. The Soviets would therefore be obligated to conduct another successful piece of espionage to gain access to the plans for the follow-on weapon.

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[3] U.S. Central Intelligence Agency, *Soviet Acquisition of Military Technology*, April 1982, p. 10.

SOVIET METHODS FOR ACQUIRING WESTERN TECHNOLOGY

One of CIA's major findings is that the Soviet effort to obtain Western technology is "massive, well planned, and well managed—a national-level program approved at the highest party and governmental levels."[4] The CIA and Subcommittee reports describe a blend of legal and illegal, overt and clandestine, methods which the U.S.S.R. has employed in its acquisition program for Western technology. These include legitimate studies of open literature, such as scientific journals, National Technical Information Service (NTIS) documents, and patent searches; participation in academic exchanges, trade fairs and trade delegations; legal purchases of items under both general and validated licenses; illegal purchases, involving either unauthorized transshipment or purchases through dummy or Communistowned companies; and outright theft and espionage. Such findings confirm OTA's 1979 observations:

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[4] Ibid., p. 1.

> From Petrine times until the present, Russian statesmen have attempted to compensate for domestic inability to generate competitive innovation by importing know-how from abroad . . . All levels of Soviet administration —including that of the Communist Party— may provide inputs in the process of foreign technology acquisition . . . Decision-making on individual technology purchases is based on a coordinated system of collecting and processing Western scientific and technical information . . . Nearly all R&D bodies—in particular the engineering-design bureaus—and many large enterprises collect relevant information. In addition, each ministry includes at least one Institute . . . one of the functions of which is to process available Western scientific and technical data . . . Western technical literature is translated, published, and made available to relevant specialists in a relatively short time. Specialists who are sent abroad are required to report on Western technological achievements. Soviet intelligence services also engage in scientific and technical espionage . . .[5]

Observers of the Soviet economy still disagree over the efficiency of this technology acquisition program, but such debate is tangential to the major point here. The significance of the multifaceted nature of the U.S.S.R.'s program for U.S. policymakers lies in the fact that different transfer mechanisms lend themselves to very different legislative and administrative remedies. Any serious attempt to affect technology flows to the U.S.S.R. must carefully separate these channels.

Conceptual distinctions must therefore be made between technology acquisitions which fall into the following five categories:

I. Legal transfers made possible by the open nature of Western society, e.g., through perusal of open scientific literature, and NTIS documents, academic exchanges, trade fairs, etc.
II. Legal transfers of technologies which are not subject to national security controls on the CCL or CoCom lists, and which are therefore obtained under general license.
III. Legal transfers of technologies under an approved validated license.
IV. Illegal transfers through purchase, e.g., purchases by agents, through third countries or foreign embassies, purchases through dummy corporations, etc.
V. Illegal transfer through industrial espionage or the theft of materials classified by the U.S. Government.

Different legislative remedies apply to each of these categories. For instance, legislation directed at the first, if desirable at all, must be crafted with extreme care if it is not to seriously affect the ability of Western scientific and industrial communities to function, or to jeopardize first amendment rights of U.S. citizens. At the other end of the spectrum, Soviet activities which fall into the fourth and fifth categories are already illegal. Government attention here must for the most part be focused on improving enforcement of and compliance with existing laws. The second and third categories together constitute the area most central to further legislation and to which important parts of the Export Administration Act are addressed. The remainder of this section will briefly discuss each category.

ACADEMIC AND SCIENTIFIC EXCHANGES

Category I is the subject of a report, *Scientific Communication and National Security,* published in 1982 by the National Academy of Sciences (NAS). This study addressed the difficult dilemma posed by the apparent conflict between two important national interests: maintaining and promoting free communication in science and technology; and minimizing as far as possible the role of American science and technology in the buildup of Soviet military strength.

On the one hand, members of the academic and scientific communities have pointed out the extent to which scientific advances depend on free and worldwide access to all developments, even in seemingly unrelated fields. This access can only be achieved through open international publications, scientific meetings, and personal communication. In addition, American academics are jealous of the prerogatives of academic freedom and have been quick to condemn suggestions which appear to impinge on these prerogatives. They particularly object to proposals which have sought to place the burden of preventing undesirable technology transfer on the universities, requiring them to monitor and restrict the activities of Soviet and East European students. Most universities hold that the responsibility should lie with the Immigration and Naturalization Service, which can refuse to grant visas in the first place.

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[5] *Technology and East-West Trade,* op. cit., pp. 205, 215, 217.

On the other hand, Members of both the House and the Senate have expressed the belief that the benefits of scientific communication and academic and scientific exchange devolve far more on the U.S.S.R. than on the West. They note, for instance, that most American exchange students do research in the humanities and social sciences, while Soviet exchange participants are often established

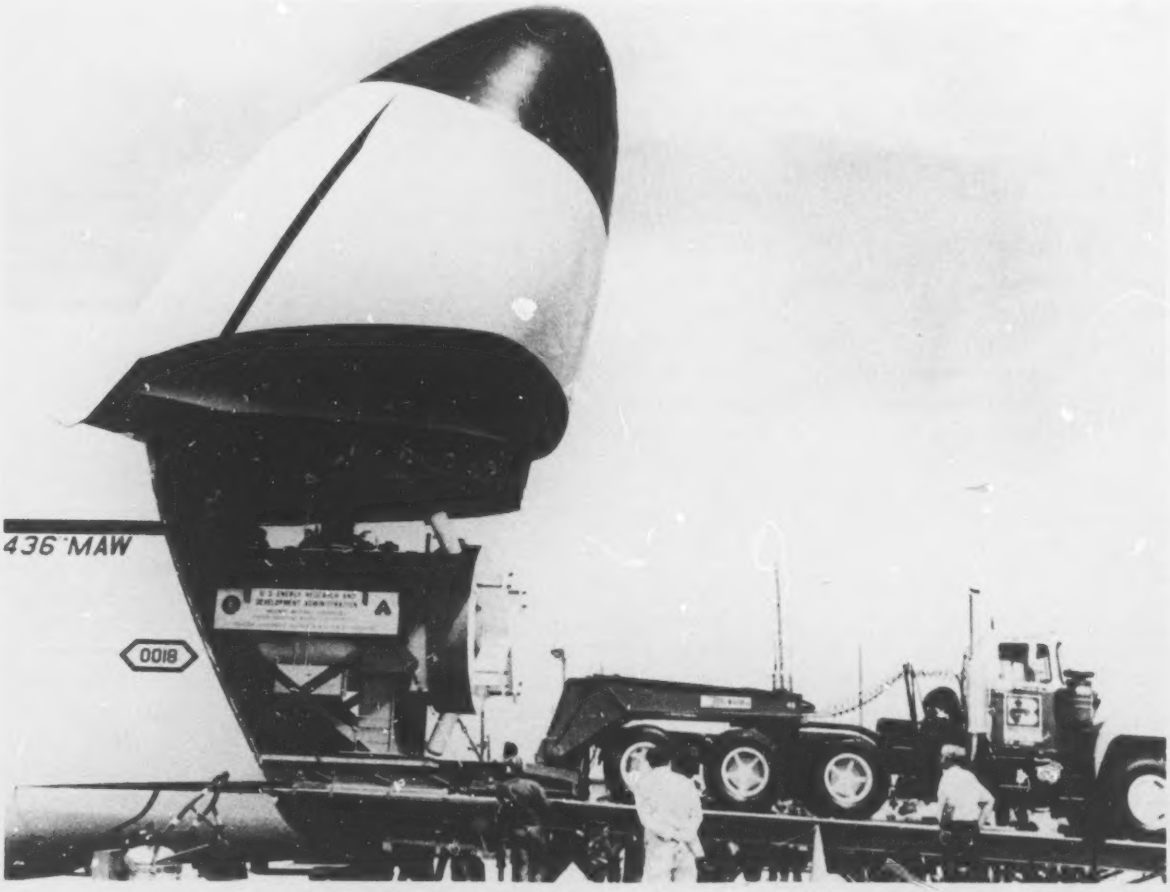

Photo credit: U.S. Department of Energy

American magnetohydrodynamic (MHD) technology arrives in the Soviet Union as part of the U.S./U.S.S.R. Cooperation Program scientists who enter programs in advanced science and technology.[6] This disjunction is due to the fact that the Soviets carefully screen the exchange students they admit to their own country and just as carefully target the students they send to the West. An obvious response would be for the United States to adopt similar procedures, although such an attempt risks running counter to the generally accepted view that U.S. exchanges are primarily an aspect of academic life and not a tool of foreign policy.

The NAS report does not deny that U.S. exchange programs with the U.S.S.R. have been characterized by a basic "lack of symmetry," or that the Soviet Union has gained militarily from the net flow of "products, processes, and ideas" from West to East. The report also recognizes the importance and propriety of protecting certain research through classification and the problems posed by the existence of a few "gray" areas of particular sensitivity, which are not amenable to Government classification. Nevertheless, with the exception of these, NAS recommends that no restrictions of any kind limiting access or communication be applied to basic or applied university research. This conclusion is grounded on the Academy's judgments that *"in comparison with other channels of technology transfer, open scientific communication involving the research community does not present a material danger from near-term military implications,"*[7] and that the important economic, political, and military benefits to the United States of unfettered exchange and communication outweigh the risks. It is also relevant to point out that many believe that the transfer of information through academic and scientific exchange programs is less likely to result in the ability to absorb, diffuse, and improve on a technology than are more active—i.e., commercial—channels. In addition, strong legal and social forces in the United States make this area particularly intractable to careful targeting of controls.

ILLEGAL TECHNOLOGY TRANSFERS

As chapter VII points out, there is broad agreement that enhanced enforcement of existing regulations should become an important priority, although opinions as to how enforcement efforts should be implemented may differ. Unfortunately, in the rhetoric surrounding export control, the distinction between legal and illegal technology transfers is often blurred. The resulting confusion helps to intensify the impression that the West is a "sieve," and that the U.S.S.R. is benefiting from a veritable hemorrhage of U.S. technology. This impression is in turn useful in fostering a climate of public opinion supportive of extending controls to a larger array of technologies and products and reducing American commercial intercourse with the U.S.S.R. Regardless of one's views on the wisdom of such a policy, maintaining a clear distinction wherever possible between military gains made by the U.S.S.R. through theft and deception, and gains made "legitimately" under U.S. law is essential to any serious attempt to reform or refine that law so as to minimize future gains. Thus, the utility of distinguishing categories IV and V from the other, legal, modes of technology transfer lies in highlighting the difficulty facing policymakers in their efforts to assess the magnitude of the illegal transfer problem, and in placing in perspective the relative security risks to the United States of the U.S.S.R.'s legal and illegal activities.

Admiral Inman has testified that some 70 percent of the Soviet military gains which the CIA attributed to Western technology in its 1981 study were gains "accomplished by the Soviet and East European intelligence services, using clandestine, technical, and overt collection operations."[8] Thus, strengthened export controls would affect the majority of the U.S.S.R.'s acquisitions only to the extent that they resulted in significantly improved enforcement and compliance. The fact that much of the U.S.S.R.'s Western technology is illegaly acquired also makes problematic the CIA's assertion that, "while difficult to quantify, it is clear that the Western military expenditures needed to overcome or defend against the military capabilities derived by the acquisition of Western technology far outweigh the West's earnings from the legal sales to the Soviets of its equipment and technology."[9]

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[6] See U.S. Senate, Committee on Governmental Affairs, Permanent Subcommittee on Investigations, *Transfer of Technology to the Soviet Bloc*, hearings, 96th Cong., 2d sess., Feb. 20, 1980 (Washington, D.C.: U.S. Government Printing Office, 1980) pp. 36ff.

[7] National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, Panel on Scientific Communication and National Security, Committee on Science, Engineering, and Public Policy, *Scientific Communication and National Security* (Washington, D.C.: National Academy Press, 1982), p. 41. (Emphasis in the original.)

Once illegal acquisitions are distinguished and treated separately, several important implications emerge for the formulation of policy designed to limit future Soviet opportunities. These arise from the fact that there are both domestic and foreign aspects to the problem of illegal transfer. On the domestic side, impediments to Soviet acquisition of militarily relevant American technology might be made within the framework of existing law by devoting additional resources to compliance and enforcement. Such an effort would probably meet with widespread approval, although there is presently disagreement over whether the primary responsibility for enforcement of export control laws should remain in the Department of Commerce, or whether all export-related compliance activities should be placed in the Customs Bureau. This issue is discussed further in chapter VII. In addition, Congress could be asked to consider sensitive new legal provisions—concerning the commercial activities of foreign embassies, foreign nationals, and foreign-owned companies in the United States, for example—as a means of inhibiting illegal activities in the future.

The problems of improving enforcement within the United States are relatively tractable compared to those which surround the illegal disposition of American technologies once they leave the country. Here, the United States must rely on the enforcement agencies of other nations. Even in the case of CoCom allies, cooperation has not always been as close as the United States would wish. The matter is further complicated by the fact that the extraterritoriality provision in U.S. law means that certain U.S. technologies cannot be reexported from foreign firms, which have legally acquired them, without the express permission of the U.S. Government. There is concern over the stringency with which U.S. allies, CoCom and non-CoCom alike, pursue and prosecute cases involving the unauthorized reexport of such goods, especially in cases of goods whose export to the Soviet Union is illegal according to American law, but not according to the country's own or CoCom regulations.

So long as the policy differences between the U.S. and its allies discussed in chapter V persist, no quick or easy solution to this set of enforcement problems can be expected. But the fact remains that stressing the legal and conceptual separation between those items which the Soviet Union buys and those it is forced to steal is a useful way of focusing attention on the kinds of technologies and products which contribute to Soviet military capabilities, but which are not adequately protected by U.S. law. The latter are discussed in the following section.

PURCHASES UNDER GENERAL AND VALIDATED LICENSES

Categories II and III encompass two separate problems in the administration of export control policies designed to limit the degree to which the U.S.S.R. benefits militarily from U.S. technology. Category II raises the issue of identifying those items which should be, but are not, included on the U.S. Commodity Control and the CoCom lists. There are, of course, political difficulties in the United States and abroad which accompany most efforts to include new items on these lists. But aside from these, and arguably more important from the perspective of designing effective export control guidelines, is the technical task of keeping abreast of rapidly developing technologies in a variety of fields, with a variety of potential military applications.

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[8] In *Transfer of United States High Technology*, op cit., p. 577.
[9] CIA, op. cit., p. 10.

No law can delineate these technologies. Rather, it is the task of the legislator to mandate and allocate adequate resources for the creation of an administrative framework within which flexible and farsighted evaluation of the direction of technological change in both the civilian and military sectors can take place. There are serious practical and conceptual barriers here. At the root of most of these problems is the fact that important new technologies exist now in the West, which are being developed in the civilian sector and which presently have no known or practical military utility. However, these technologies may well have important military applications in the future.

One aspect of this problem involves leadtimes. Today's emerging technologies may be at the center of export licensing controversies 5 years hence. It is therefore vital that an effective mechanism exist for identifying such technologies early enough to gather them into the control process before so much worldwide diffusion occurs as to make the controls moot. A second difficulty is that the United States is not necessarily the originator of important new technologies. Civilian technologies with potential military significance—robotics, for example—are developing in allied countries. In these cases, not only must the United States have the ongoing capability to identify the technology early, but it must also begin early to persuade other Western nations to bring the items or processes in question under the rubric of control.

Finally, the entire process of identifying technologies with potentially important military significance is made more difficult by the fact that, in contradistinction to the situation in years past, there are technological areas in which development in the military sector lags that of the civilian. The same problem applies here as in the situation described above: the relevant technologies must be identified, and a convincing case must be made for their protection.

Category III addresses procedural issues, i.e., the functioning of the existing export licensing apparatus. In theory, when it is working properly this apparatus should adequately identify technologies and products with potential "dual" (i.e., both military and civilian) use, and employ an elaborate interagency review mechanism to allay all reasonable doubt that sale of the item in question will not result in a military gain by the U.S.S.R. In practice, export licensing procedures have been the subject of intense criticism and there exists a long list of suggestions—some mutually exclusive —for improving them. The problem is that while it is relatively easy in the clear light of hindsight to identify licensing decisions that now seem to have contributed to Soviet military capabilities, it is by no means obvious that:

- economic or political considerations at the time were not considered by high-level decisionmakers to outweigh the military risks;
- these military applications could have been anticipated at the time;
- denial of a U.S. license would have withheld the technology from the U.S.S.R.; and/or
- any other licensing mechanism would necessarily result in fewer such "mistakes."

This is not to suggest that it is impossible to improve the licensing process, or that concern over Soviet military gains resulting from legally purchased American goods and technologies is unwarranted. It is to assert that evaluation of the process cannot be undertaken in isolation from an understanding of the basic assumptions which guide it. The technical and logical criteria for including technologies in the export licensing process and the "case law" which provides the grounds for granting licenses in disputed cases together reflect the prevailing understanding of the concept of "military significance."

THE CONCEPT OF MILITARY SIGNIFICANCE

The largely interchangeable terms—"military significance," "military utility," and "military risk"—which lie at the heart of export control policy have been subject to widely varied interpretations. At times their definition has been colored by the prevailing political climate. Just as there was a tendency to extend export controls to items of only indirect military utility during the Cold War period, a counter-trend during detente led to relaxation of export controls on the grounds that the economic and political benefits of detente outweighed the military risks created by the sale of dual use technologies. Thus, export licensing decisions have long reflected judgments based on other than technical military assessments.

In 1976, the Defense Science Board produced a report which assessed the impact on U.S. national security of the transfer of selected high technologies. This document, commonly known as the Bucy Report, has become the basis for a protracted effort on the part of the U.S. Government to develop a means of assessing military risk which rests on objective technological criteria and is therefore relatively immune to shifting political opinion. This effort, the Critical Technologies Exercise, is predicated on the assumption, implicit in the Bucy Report, that one can identify the subset of significant technologies on which U.S. military technological superiority is most dependent; and that these technologies can be described on a Militarily Critical Technologies List (MCTL), and subject to stringent export control. One advantage of producing such a list would be that the items on it could be made immune from attempts to use export licenses as "carrots" or "sticks" in exerting political leverage. It is difficult, after all, to make a rational case for selling a militarily critical item or process to the U.S.S.R., no matter what the political demands of the moment.

Congress felt the creation of an MCTL a sufficiently promising enterprise to mandate it in the 1979 EAA. As envisioned in the act, the List would consist of:

> A) arrays of design and manufacturing know-how;
> B) keystone manufacturing, inspection, and test equipment; and
> C) goods accompanied by sophisticated operation, application, or maintenance know-how which are not possessed by countries to which exports are controlled . . . and which, if exported, would permit a significant advance in a military system of any such country.

The List was to be specific enough to guide validated licensing decisions, and to become part of the Commodity Control List.

Technology and East-West Trade, published shortly after the passage of the 1979 EAA, expressed reservations as to the extent to which the critical technologies effort could be counted on to allay the debate over the boundaries of military relevance:

> It would be both misleading and unwise to regard the development of a critical technology list as a panacea to the difficult problem of protecting U.S. military technology leads. Skepticism already exists, both in Government circles and within the business community, as to whether the revised lists will indeed be shorter than present ones; there is fear, in other words, that reluctance to decontrol items or a broad definition of criticality will result in similar or longer lists. This might further inhibit East-West trade and could also provoke objections among some members of CoCom. From the other side, there are fears that a critical technology list will be too short, i.e., that items of marginal, but potentially important, military utility will be decontrolled to the ultimate detriment of the United States.[10]

These reservations are equally apt today, and uncertainty over the ultimate disposition of the MCTL has not yet been dispelled. The List, which except for its table of contents is classified, is said by some to be so voluminous that it constitutes a "Modern Technologies List." This view may at least partly rest on misperceptions arising from the fact that relatively few individuals have been cleared to actually study the List. But it is also true that the Department of Defense's (DOD) view of the scope of military criticality is controversial. The business community is understandably alarmed at the prospect of a significantly longer list of national security controls and the Departments of Defense and Commerce have so far been able to agree on the incorporation of only selected parts of the MCTL. Furthermore, DOD has taken the position that the MCTL should be adopted by CoCom. Given the climate of opinion described in chapter V, the chances for the wholesale inclusion of an array of items and processes covering the technological universe would seem small. On the other hand, the detailed technical analysis accompanying the MCTL has reportedly been useful in supporting U.S. positions in CoCom on a case-by-case basis.

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[10] *Technology and East-West Trade*, op. cit., p. 94.

TOWARDS A DEFINITION OF MILITARY SIGNIFICANCE

On the evidence of the historical precedent for changes in the prevailing interpretation of the concept of military significance, and of the longstanding difficulties surrounding the Critical Technology Exercise, it is unlikely that controversy in the export licensing community over the boundary between acceptable and nonacceptable military risk will be quickly or permanently laid to rest. The grounds of the debate may be clarified, however, by distinguishing among the various categories of military significance.

Items of potential military value which the U.S.S.R. might wish to purchase from the United States fall into four groups:

I. High-technology items which have a direct military utility—i.e., their sole use is that they can be embodied in a weapon; or their sole use is in the production process for a weapon. Access to these technologies would allow the acquisition of military capabilities otherwise outside the realm of the recipient's technical competence within the same time frame.

II. Low-technology items which have clear dual use capabilities in the area of military support. For example, automotive technology, which is widely available and has legitimate civilian applications, but which can be used to produce military trucks.

III. High-technology items which have dual uses, i.e., they may be embodied in or used directly in the production of weapons or military support, but they also have applications that will improve industrial productivity generally. The most important areas here are computers, semiconductors, machine tools, instrumentation, and telecommunications.

IV. Low-technology items which are unarguably destined for the civilian sector, e.g., grain or pipelayers.

There is little dispute, either within the United States itself or in CoCom, that technologies in category I should be stringently controlled. Similarly, our CoCom allies vigorously disavow the wisdom or utility of engaging in the kind of economic warfare implied by denial of items in category IV. But although the legislative history of EAA shows a clear intent on the part of Congress to move away from policies of economic warfare, items in category IV have been controlled by the United States for foreign policy purposes. Moreover, some would make the case for controls on category IV for national security reasons. These arguments for the extension of export controls to low technology goods unarguably destined for the civilian sector have been based on several grounds:

- that such exports generally strengthen the Soviet economy and that the strength of the economy is directly related to the U.S.S.R.'s military capabilities;

- that exports "free" resources for the military sector which the U.S.S.R. would otherwise have to devote to nonmilitary uses; or
- that the exports will help to generate hard currency which the Soviets will use to buy more advanced Western technology of military relevance.

Such arguments aside, the present administration has repeatedly disavowed any concept of military significance wide enough to encompass non-high-technology exports to the Soviet civilian sector, even if these allow the U.S.S.R. to avoid economic hardship or difficult choices in the allocation of its own resources. Nevertheless, the administration clearly seeks to broaden the definition of military significance to include items in categories II and III—perhaps even extending these categories to reach lower levels of technology than are presently subject to license. Administration officials stress the magnitude of the Soviet military threat and the extent of the Western contribution to the Soviet military buildup. They are widely perceived to favor the extension of export controls to items not presently included on the CoCom lists, and to seek the denial of more export license applications, both in the domestic licensing and CoCom exception processes. Categories II and III therefore constitute the "battleground" over which export licensing decisions have been and will continue to be fought out case by case.

SUMMARY AND CONCLUSIONS

There are severe constraints on the power of U.S. export licensing to deny the Soviet Union access to the Western technologies it most wants. These constraints include the extent to which Soviet efforts to acquire Western technology encompass illegal methods, U.S. inability so far to obtain complete allied agreement on a more strenuous multilateral export control policy, the difficulties inherent in identifying in advance which technologies will have important military payoffs, and the increasing worldwide diffusion of technology. Thus, it is foolhardy to expect that even drastic changes in U.S. export control policy could materially alter the fact that the U.S.S.R. benefits militarily from Western technology. On the other hand, it is extremely rare to find examples of military technologies obtained from the West which the U.S.S.R. could not have produced itself, albeit later and at additional expense.

Given this situation, it is important that the United States not lose sight of the primary objectives of an effective and realistic export control program. Such a program cannot be expected to permanently deny the Soviet Union access to particular technologies. It is successful to the extent that it increases the cost to the U.S.S.R.—in time, money, effort, and efficiency—of obtaining the technologies it desires; and to the extent that the roadblocks it creates limit the rate and volume of Soviet technological acquisitions. In the long run, technological leads can only be maintained through effective research and development efforts.

CHAPTER VII

Options for U.S. Policy

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CHAPTER VII

Options for U.S. Policy

EXPORT ADMINISTRATION POLICY ORIENTATIONS

In February 1983, Congressman Don Bonker introduced the "Export Promotion and Control Act of 1983,"[1] a bill to amend the 1979 Export Administration Act (EAA). The bill's title neatly captures the twin foci of U.S. export administration policy, which has sought to deal with the sometimes irreconcilable problems of maximizing the commercial benefits of trade and safeguarding national security. Indeed, one informed observer of the legislative process has predicted that measures for amending or replacing EAA "will be proposed by legislators who have as their primary concern one or the other of these two problems."[2]

Arrays of specific proposals have already been put forward by both sides. The bill drafted by the administration emphasizes the importance of preventing or delaying the transfer of "militarily sensitive" technology, and includes provisions aimed at tightening strategic controls. In contrast, Congressman Bonker's bill would lift many of the burdens placed on exporters by existing control policies. Bills sponsored by Senators Garn, Heinz, and Nunn and Representatives Byron and Roe fall within these two extremes.

Examination of these proposals and of the arguments advanced in their support reveals that while this dichotomy of views accurately captures the basic concerns of many of the protagonists in the export administration policy debate, there exists a more complex matrix of policy goals. In fact, the debate over U.S. export administration policy toward the U.S.S.R. centers on how to simultaneously pursue and to balance four different objectives. In the past, the relative emphasis accorded these elements has from time to time shifted. A new or revised Export Administration Act will reflect congressional decisions—or refusal to decide—how best to accommodate all four objectives.

THE NATIONAL SECURITY PERSPECTIVE

Goals

The primary goal of policy options which focus on U.S. national security is to make it as difficult as possible for the Soviet defense establishment to acquire and use Western technology. Therefore, proposed legislation is designed to prevent or inhibit the dissemination of equipment and technologies believed to have military utility. Such exports are deemed inherently damaging to the United States. These proposals seek to impose permanent—or at least relatively long-lasting—controls on items, based on technical evaluation of their properties and capabilities.

Assumptions

Adherents of this perspective believe that:

- the U.S.S.R. is making important military gains through the acquisition of Western technology;
- tightening U.S. export licensing requirements can make significant inroads into this process;
- the security benefits of such controls outweigh the economic costs of foregone exports; and
- that sustained U.S. pressure can bring America's allies closer to its own position on these matters.

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[1] H.R. 1566.

[2] Paul Freedenberg, "U.S. Export Controls: Issues for High Technology Industries," *National Journal*, Dec. 18, 1982, p. 2190.

THE FOREIGN POLICY PERSPECTIVE

Goals

The primary goal here is to preserve a situation in which Presidential use of exports as an instrument for achieving diplomatic objectives has been as easy and effective as possible. This involves the power to apply controls to items which do not fall under the rubric of national security, and envisages that such controls would be flexible and of limited duration.

Assumptions

Advocates of maintaining broad executive discretion in the use of foreign policy controls believe that:

- the Soviet need for Western imports provides an effective lever for affecting Soviet policy and behavior; and/or
- political intervention in the conduct of international trade is an appropriate mechanism of diplomacy; and/or
- U.S. foreign policy requires a means by which the President can reward or punish Soviet actions where no suitable alternative instruments to manipulation of trade controls exists.

THE EFFICIENCY PERSPECTIVE

Goals

The primary goal of this category of proposals is to create a licensing system which will allow actual or potential exporters the ability to plan ahead and to retain or acquire reputations as reliable suppliers. A secondary goal is to encourage compliance and increase the efficiency of the export licensing process. These ends would be achieved by making the export control system more predictable, consistent, and efficient.

Assumptions

This perspective is based on the proposition that, whether its objective is to limit or encourage exports, U.S. policy should be administered in a timely and predictable manner and enforced so as to encourage compliance and achieve the maximum benefit/cost ratio for its policing efforts. It also assumes that such development would allow U.S. companies to invest more sensibly and compete more effectively in international markets. This expectation is grounded on the necessity for business to predict well in advance whether a given export will be approved. Holders of this perspective tend to believe that foreign policy controls are highly disruptive of trade but unlikely to cause changes in policies abroad. Some hold that such controls are appropriate only when there is a general consensus in CoCom on their appropriateness. Similarly, some proponents of this position hold that complex licensing procedures place unnecessary burdens on U.S. businessmen and taxpayers which could be avoided by adherence to a clear and consistent policy.

THE TRADE PROMOTION PERSPECTIVE

Goals

The primary goal of the trade promotion perspective is to enable U.S. companies to compete effectively in selling the widest possible variety of civilian goods and technologies anywhere in the world. Therefore, controls should be tightly limited in scope and administered in a consistent and predictable manner.

Assumptions

The trade promotion perspective rests on various combinations of some or all of three basic lines of reasoning. First, the United States does not have a worldwide technological monopoly; and since our allies are unlikely to change their own export promotion policies which protect only clearly military items, U.S. efforts to deny the U.S.S.R. many technologies are destined to fail. Second, foreign policy controls nearly always fail to alter the behavior of those against whom they are directed. Moreover, because they are by nature unpredictable, these controls are highly disruptive and cost U.S. business present and future sales. Third, export controls are costly to the United States and should be used to the minimum extent necessary. This view is based on the perceptions that the United States is increasingly becoming a trading nation, that its balance of payments is consequently important, and that export controls beyond those obviously necessary for national security purposes reduce U.S. firms' ability to compete for sales.

In some cases, these policy orientations are mutually supportive. It is consistent, for instance, to sponsor both provisions which strengthen national security controls and those which promote flexibility for imposing foreign policy controls on trade. Similarly, attempting to maximize the efficiency and predictability of the export licensing system is consistent with either the national security or trade promotion perspective. On the other hand, the national security and export promotion perspectives are inherently at odds. Furthermore, the very existence of foreign policy controls introduces an element of unpredictability into the export licensing system, which works against both efficiency and trade promotion. Administration of the 1979 EAA is complicated by the fact that inconsistencies of this sort were built into it, and a like result in September 1983 could lead to similar problems. The relationships between basic policy objectives are summarized in table 8.

The remainder of this chapter examines the specific options available to Congress in crafting an export control policy, and discusses some of the potential consequences of and criticisms aimed at each. Several of these proposals embody more than one of the four basic perspectives described above. While they are reviewed here under the rubric of strengthening national security versus promoting exports, the reader should bear in mind the variety of possible combinations. For instance, it is entirely consistent to seek to limit the flow of technology by tightening export requirements to non-Communist nations, while at the same time seeking to improve the reliability of U.S. exporters by forbidding the retroactive application of foreign policy controls.

Table 8.—Relationships Between Policy Objectives

	National Security	Foreign Policy	Efficiency	Trade Promotion
I. National Security	—	Consistent	Consistent	Inconsistent
II. Foreign Policy	Consistent	—	Inconsistent	Inconsistent
III. Efficiency	Consistent	Inconsistent	—	Consistent
IV. Trade Promotion	Inconsistent	Inconsistent	Consistent	—

SOURCE: Office of Technology Assessment.

EXPORT ADMINISTRATION POLICY OPTIONS

PROPOSALS DESIGNED TO STRENGTHEN NATIONAL SECURITY CONTROLS

Remove Primary Responsibility for Export Licensing From the Department of Commerce

Critics of the export licensing system have observed that the Department of Commerce (DOC) plays an ambivalent role because it is simultaneously responsible for the promotion and control of trade. It is possible that in some cases this may result in neither function being optimally served, but the focus here is primarily on the fear that, because of its promotional mandate, DOC is not as vigorous as it should be in applying and expanding national security controls on exports to the U.S.S.R. Two kinds of legislative remedies have been proposed: to assign primary responsibility for export control to the Secretary of

Defense; or to create an entirely new and independent body with sole responsibility for export control.

The first of these suggestions appeared in two bills introduced in January 1983 in the House of Representatives.[3] In 1979, OTA reviewed similar proposals and observed that such a shift might have greater symbolic than operational impact, given the active role already assigned the Secretary of Defense by EAA. This symbolic value could be significant, however, both as a signal to America's allies of U.S. resolve to increase the prominence of security in trade policy; and as a signal to the business community that Government policy was clearly moving to restrict trade with the U.S.S.R.

The second suggestion, put forth by Senator Jake Garn, is to create an independent Office of Strategic Trade (OST), with a director who would sit on the National Security Council. It is Senator Garn's contention that export control is too important a function to be lodged in a Department whose principal trade function is promotional, and that a high-level OST would "be able to attract top quality personnel and be able to give consistent and balanced policy guidance to the President." The Senator further argues that the United States will never "devote the resources commensurate with the magnitude of the Soviet effort to acquire Western technology as long as the export control function is contained within the export promotion agency;" and that "we will never make the consistent, high level effort necessary to induce our allies to tighten up and harmonize the CoCom control list unless we have an agency with direct access to the National Security Council, and through it to the President."[4]

Compelling as this argument may be, the concept of an OST has been criticized by parties on both sides of the export control/promotion debate because it would create a new agency. In this case, the intrinsic merits of the proposal may be subordinated to the prevailing mood, both in and out of government, which argues against the proliferation of bureaucracies. An intermediate step, less likely to arouse opposition on these grounds, would be to reorganize the export control functions within DOC, both to elevate the status of the Office of Economic Affairs within the Department and to remove it from the jurisdiction of an Under Secretary who also has trade promotion responsibilities. Such a reorganization has reportedly been proposed, but held up within the Administration. Should it eventually take place, it will address part, but not all, of Senator Garn's concerns.

Remove Indexing From EAA

Existing law mandates that, where appropriate, annual increases be made in the performance level for items subject to export licensing requirements, and that goods and technologies be periodically deleted from the Commodity Control List (CCL) as they "become obsolete with respect to the national security of the United States." Indexing has been opposed by those who see in it the danger that items obsolete in terms of Western state of the art, but still able to significantly improve existing Soviet military capabilities, will be decontrolled. On the other hand, the business community has charged that the CCL still contains items which are trivial by today's technological standard and which are easily available worldwide. Room probably does exist for removal of such items without potential damage to U.S. national security. Interestingly, the indexing provision of the 1979 Act has not been implemented by the executive branch. The administration proposes modifying the automatic nature of this provision by requiring that the anticipated military needs of potential adversaries be taken into account before decontrol.

Broaden the Definition of Technology

Senator Garn's Office of Strategic Trade bill expands the definition of technology to cover technological or technical data which include:

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[3] H.R. 381, introduced by Mr. Roe; and H.R. 483, introduced by Mrs. Byron.

[4] Freedenberg, op. cit., p. 2192.

> . . . information or knowledge of any kind that can be used or adapted for use in the design, production, manufacture, repair, overhaul, processing, engineering, development, operation, maintenance, or restoration of goods or commodities, including computer software. Information or know-how may take tangible form, such as models, prototypes, drawings, sketches, diagrams, blueprints, or manuals, or take an intangible form, such as training or technical services. Technological data shall also include all goods or commodities that will be used in the industrial application of the technological information, regardless of the end-use classification of the good or commodities.

This definition rightly recognizes the subtlety and complexity of technology, and the wide and diverse array of hardware and software, tangibles and intangibles, which can ultimately result in the creation of militarily relevant capabilities. The problem with basing an export licensing system on such a definition is its very breadth and subtlety. The more inclusive the categories of goods and knowledge covered by licensing regulations, the more difficult such regulations are to promulgate, administer, and enforce. This is particularly true of controlling the movement of highly portable and easily conveyable items, and of monitoring oral communication.

Redefine or Remove Foreign Availability Criteria From EAA

Existing law recognizes that the availability from other sources of items controlled by the United States undermines U.S. policies and places American firms at a competitive disadvantage. EAA, therefore, directs the Secretary of Commerce to establish an ongoing capacity for reviewing foreign availability, and requires that, unless the President directs otherwise, licenses be granted for those items for which foreign availability can be demonstrated.

Some proposals have been made to entirely remove foreign availability as a ground for granting licenses or to define it so as to make its finding more difficult. The latter approach is taken in the Office of Strategic Trade bill, which requires that for an item to be available it be possessed in "comparable quantity or quality," a term which includes the following factors:

> . . . cost, reliability, the availability and reliability of spare parts and the cost and quality thereof, maintenance programs, long-term durability, scale of production, ease with which machinery will be integrated in the mode of production, and spoilages and tolerance factors for end products produced by the machinery.

This language goes well beyond that of the 1979 EAA, which nowhere defined comparable quantity or quality. The administration's bill would modify the foreign availability test by substituting "sufficient" or "significant" quantities.

In *Technology and Soviet Energy Availability,* OTA discussed at length the practical and conceptual issues entailed in the requirement that DOC establish a foreign availability assessment mechanism. The above definition addresses many, but not all, of the conceptual issues; the practical problems remain. Foremost among them is that most of the required information is likely to be proprietary data which would have to be obtained from private firms in other countries, raising the spectre of the U.S. Government's engaging in industrial espionage in allied nations. OTA concluded that ascertaining foreign availability would be "expensive, time-consuming, and perhaps intrusive;" and that since DOC's foreign availability activities had yet to become fully operational, it could not be determined whether foreign availability could be assessed in a cost-effective manner.

In fact, eliminating or narrowing the foreign availability provision may be moot. DOC still has done little to implement this part of the existing law. In December 1982, it let a contract to a private firm for a year-long study (which will be completed only after expiration of EAA) designed, among other things, to determine the kind of data needed and the relevant technological parameters for assessing foreign availability. At this writing, three employees staff DOC's foreign availability assessment program; additional slots have been authorized but not filled. It is difficult to imagine how the enormous task mandated by Congress can be accomplished at this level of effort. The degree to which foreign availability has been ignored or neglected is reflected in the fact that few validated licenses have been granted on these grounds. Any attempt to establish a serious foreign availability capacity would require a large appropriation, active cooperation by industry, willingness on the part of the executive branch to administer the law, and sustained congressional oversight.

Move Quickly to Subject Items on the Militarily Critical Technologies List (MCTL) to National Security Controls

This proposal is already part of existing law. Chapter VI discussed the problems which have accompanied the Critical Technologies Exercise and the difficulties encountered in absorbing its results into the CCL. So long as the Departments of Commerce and Defense continue to disagree over the optimal degree of inclusiveness of the CCL and over the proper scope of the MCTL, it is unlikely that further progress will be quickly made. Moreover, so long as the MCTL remains classified, its existence is likely to engender both ill will and apprehension—perhaps misplaced but nonetheless real—in the business community, which believes that in its present form it is so over-inclusive that it poses a serious threat to the ability of U.S. firms to compete effectively, not only in the U.S.S.R., but in free world markets as well.

Maintain and Tighten Licensing Requirements for Exports to Non-Communist Nations

At present, a number of dual-use technologies require validated licenses for export to allied countries. Applications for such licenses are routinely "rubber-stamped" in DOC, and the General Accounting Office (GAO) has recommended that these licensing requirements be eliminated. The Department of Defense (DOD), on the other hand, opposes discontinuing this practice and furthermore seeks better access to the information contained in the applications. In addition, DOD is considering proposals to control the transfer of items on the MCTL anywhere in the world, an effort which would significantly raise the level of control on West-West technology and technical data transfers.

These proposals are realistic in acknowledging the worldwide diffusion of technology and the potential threats to American security from many countries outside the Soviet bloc. They also acknowledge the fact that many other nations—Western and non-Western—have export licensing policies which provide the U.S.S.R. access to the equipment and processes it cannot obtain from the United States. Attempts to tighten West-West controls are certain, however, to meet with determined resistance from the business community, which, would find them an additional impediment to engaging in international business. The licensing of data would be especially burdensome for multinational corporations, who would have to obtain individual transaction licenses for routine communication with foreign national employees and business partners; and overseas subsidiaries, licensees, and subcontractors.

Attempt to Strengthen CoCom

Proposals here reflect two different but related goals: making CoCom a more effective implementor of allied consensus where it does exist; and attempting to use CoCom as a vehicle for bringing allied East-West trade policy in line with that of the United States. Specific measures in these areas have been proposed by the administration and include working toward formalizing the organization in a treaty; improving the enforcement and monitoring of CoCom decisions and/or instituting sanctions against transgressing members; expanding and strengthening the CoCom list so that it includes items now unilaterally controlled by the United States; attempting to remove foreign availability where it currently exists in member nations; and raising the level of funding for America's CoCom activities.

Obtaining multilateral agreement to the U.S. position is liable to be a difficult and long-term process; some would say it is impossible. Part of the difficulty stems from the nature of CoCom itself. CoCom is based on an informal agreement. Decisions must be unanimous and compliance with its decisions is voluntary. In addition, CoCom's day-to-day activities are conducted by fairly low-ranking officials, who require guidance from their governments. None of these are insurmountable obstacles to action; in fact, many of these problems exist in the North Atlantic Treaty Organization and are probably endemic to international organizations.

A more serious difficulty stems from the fundamental differences between the United States and the other members in their perspectives on East-West trade. (See ch. V.) There is a consensus that goods and technology that would strengthen the military capacity of the Communist countries should be controlled to protect Western security and that CoCom is the appropriate mechanism to achieve this end. But since CoCom was founded in 1949, there have been differing definitions of what constitutes a strategic commodity and, hence, what to control. The United States has generally favored controlling a larger number of items than the other members. This was true even during the 1970's when the United States was the largest requester of exceptions to the CoCom controls. Moreover, the United States devotes more resources to enforcement than do the other members, and it treats violations more seriously. Other members do not impose reexport controls, and few impose criminal penalties on violators. Finally, while the U.S. Government has endorsed the critical technology approach, European and Japanese leaders remain skeptical that it can be made to work in practice and are likely to balk at its inclusiveness.

The question is not whether these problems are insurmountable, but rather whether Congress can legislate meaningful changes in allied policy. Recent events—notably the pipeline embargo—have suggested that policies that can be interpreted as coercive or critical of the allies may be counterproductive in countries where East-West trade is a sensitive issue. Yet, there is evidence that quiet diplomacy and careful preparation of cases based on solid evidence have led to positive movement in CoCom. It would seem, therefore, that CoCom negotiations best take place at a high level out of the public eye. On the other hand, Congress could signify the importance it attaches to the CoCom effort by appropriating funds for America's CoCom activities.

Curtail Academic and Scientific Exchange Programs and Access to Open Literature

The difficulties raised by such proposals are discussed in chapter VI. The conclusions drawn in this discussion are that first, it has not been previously demonstrated that the potential security danger to the United States of exchange programs outweighs the political, scientific, and cultural benefits of maintaining open channels of communication with the U.S.S.R. Second, it is generally believed that such passive mechanisms of technology transfer are less likely to result in Soviet ability to absorb, diffuse, and improve on technological acquisitions than are more active, commercial channels.

While few would suggest that the U.S. Government attempt to control scientific journals, there have been calls for restricting access to the National Technical Information Service (NTIS) on the grounds that the U.S.S.R. uses this service to acquire valuable militarily relevant information arising from Government-sponsored research. It is true that Soviet citizens can easily and legally obtain NTIS documents. However, it is not clear that one class of potential recipients can be excluded from NTIS circulation without placing cumbersome restrictions on, or changing the open nature of, the entire service. A more promising alternative would be to ensure that militarily relevant research be disseminated not through NTIS, but through the Defense Technical Information Center, to which Soviet officials do not have legal access.

Restrict Technology Sales to Foreign Embassies

The administration favors granting the President authority to prohibit sales within the United States of goods and technology to embassies of countries to which such exports are controlled. This proposal is justified on the grounds that such sales may be reducing the effectiveness of national security controls. While this provision would eliminate a gap in the law, and thereby have symbolic value, it would be extremely difficult to administer, and it is not clear that it could be made effective.

PROPOSALS DESIGNED TO PROMOTE EAST-WEST TRADE

Restrict Presidential Power to Impose Foreign Policy Controls on Trade

Perhaps no trade control issue has so galvanized the U.S. business community as the recent controversy over extraterritorial and retroactive foreign policy controls on oil and gas technology. The legislative grounds for and circumstances under which these controls were extended, as well as their potential economic and political consequences, have been discussed elsewhere in this report. Fear of these consequences, coupled with the general climate of unpredictability and uncertainty engendered by President Reagan's action, has led to a number of proposals designed in various degrees to curtail the President's virtually unlimited powers in this area by making it more costly and less easy to impose trade controls for reasons of foreign policy.

Suggestions here fall into three basic categories. First, a number of proposals seek to involve Congress and the public to varying degrees in the decision to impose foreign policy controls on trade. Second, legislation has been introduced by Congressman Bonker (H.R. 1565) to authorize insurance against losses incurred by firms from the imposition of export controls. Third, some measures are designed to make the imposition of foreign policy controls less attractive or available by either limiting the range of eligible transactions or requiring that export controls be accompanied by other measures. Thus, the "Export Administration Act Amendment of 1983" (S. 397) introduced by Senator Heinz contains a sanctity of contract provision, meant to ensure that finalized contracts and other agreements not be abrogated by foreign policy controls imposed after the fact. Also in this category are suggestions to eliminate or curtail extraterritorial controls, and to require that controls be placed on imports from as well as exports to countries which are the targets of foreign policy sanctions.

Measures in the first category include creating the mechanism for an outright congressional veto of foreign policy controls; instituting shorter expiration periods for controls once imposed; requiring meaningful prior notification of Congress, including a showing of need, effectiveness, and foreign unavailability; prior assessment by the administration of the economic and political costs of trade sanctions; and holding public hearings and soliciting written comments on proposed controls. Many of these measures are strengthened versions of safeguards already enacted into law in 1979. Their reappearance is a reflection of the extent to which presidential actions are perceived to have departed from Congress' intent in drafting the foreign policy control section of EAA; and of the lack of faith in future executive self-restraint.

However, this class of proposals raises several difficult problems. Foremost is that the ability to conduct foreign policy is essential to the concept of Presidential power. Laws which seek to encroach on that power risk being unenforceable. They also risk inhibiting necessary elements of diplomacy—flexibility, the ability to respond quickly to international situations, and the ability to select from a variety of responses, short of military action. Moreover, denying the President formal access to foreign policy controls does not necessarily mean that exports will not be used as foreign policy tools. A determined President would still have access to powers under the International Emergency Powers Act (IEPA). Forcing recourse to this Act or encouraging the President to justify trade sanctions as matters of national security might be counterproductive. Using IEPA would require declaring a national emergency and thus perhaps escalating the importance of the situation. It is possible that this alone would deter the use of foreign policy controls, but once imposed on these grounds, virtually no checks would exist on them. Surely this outcome runs directly counter to the desires and expectations of those seeking to remove trade from the foreign policy arena.

The insurance proposal assumes both that Government insurance could adequately compensate U.S. firms for lost business, and that measures which would directly raise the domestic cost of foreign policy controls would make them less attractive and tend to limit their use. While insurance coverage of nonagricultural goods would constitute equitable treatment for nonfarm exporters, in fact, it is not clear that the compensation provided would be satisfactory to affected firms or that serious eligibility problems would not arise. More importantly, insurance might well have the opposite effect to that intended: the imposition of foreign policy controls might be encouraged if the government anticipated that insurance reimbursement would neutralize negative reaction from U.S. businesses.

Those proposals in category three which would result in narrowing the range of transactions subject to foreign policy controls seem the most promising. A sanctity of contract provision would effectively extend to all exporters the same protection now offered only to sellers of agricultural commodities. This in itself would be equitable treatment. Such a provision might also help dispel part of the reputation of unreliability, discussed in chapter IV, which U.S. exporters believe now hampers their efforts abroad. Efforts to conduct "lightswitch diplomacy," condemned by Secretary of State Schultz when he was President of Bechtel Corp., would probably be curtailed.

The concept behind sanctity of contract has been accepted by the administration, but many businessmen feel that as framed in the administration's bill, it would do little to actually discourage the imposition of foreign policy controls or ameliorate their impact on existing contracts. The administration bill would protect only those contracts requiring delivery within 270 days of the imposition of controls, and even these contracts could be set aside if the President deemed it in the national interest that such exports be prohibited. By contrast, the existing contract sanctity provision for agricultural goods can be set aside only in case of war or a national emergency declared by the President.

Similarly, reducing the scope of U.S. foreign policy controls which could be applied to foreign nationals would be welcomed by U.S. allies and would possibly retard some of the emerging reluctance on the part of foreign firms to enter into business relationships with the United States. Both of these measures to some extent limit Presidential options. Neither does so as fundamentally as the proposals in category one above.

Decontrol Items Containing Embedded Technology

One area of dispute between the Departments of Commerce and Defense has been the extent to which the list of items subject to national security controls can be shortened, particularly by deleting items incorporating microprocessors. At present, all equipment which contains microprocessors requires a validated export license, regardless of foreign availability or strategic significance. The Under Secretary of Commerce has testified before Congress that as many as 10,000 separate products—including personal computers and electronic toys—are controlled simply because they included this so-called embedded technology. The embedded technology debate reflects the classic dispute between those who put the benefit of the doubt on the side of national security at the expense of U.S. commercial interests, and those who believe that the evidence for the military risk claimed in these cases is too tenuous to justify the economic costs of controls.

Ease Foreign Availability Criteria

Chapter III discussed the problems associated with creating the capability to assess foreign availability within the U.S. Government. One alternative to undertaking this difficult effort would be to accept potential exporters' own evidence of the existence of such availability. The practical consequence of such a policy would probably be to moot most of the national security controls which the United States imposes unilaterally, as there are few cases in which the United States holds a world technological monopoly, and many cases in which other Western nations differ from U.S. views on military criticality. Unless and until the U.S. national security control list contains a manageable number of militarily critical items which the United States and its CoCom allies all agree to deny to the U.S.S.R., the result would be to release goods and technologies which the Government considers dangerous to U.S. security, but which firms in other countries can and do sell to the U.S.S.R.

Decontrol Exports to Non-Communist Nations

The Business Roundtable, expressing a view shared by many other business organizations, has recommended that except for militarily critical technologies, validated licenses not be required for any exports to CoCom countries; and that the same principle should apply to sales to neutral non-CoCom nations, so long as they enter into bilateral agreements with the United States that subject them to rules similar to those observed by CoCom members.

As was observed above, adoption of these proposals would significantly reduce the paperwork routinely processed by DOC. Furthermore, it would reduce burdens on firms, especially multinationals, which regularly send large quantities of equipment and data overseas. Such streamlining makes particular sense in light of the fact that information from routinely processed West-West license applications does not now appear to be used in any way by the Departments of Commerce or Defense. On the other hand, these proposals rely on the dual assumptions that a small subset of militarily critical technologies can be readily and consensually identified, and that CoCom and bilateral agreements can be relied on to protect U.S. security interests. As this report's discussions of the MCTL and of CoCom have indicated, both assertions are debatable.

Create a New License Category for Multiproject Operations

Several business organizations have proposed the establishment of a Comprehensive Operations License (COL) which would be used for the transfer of militarily critical technology by firms with substantial overseas manufacturing operations. COLs would cover the transfer of a broad spectrum of militarily critical goods and data between Western companies which have a defined legal relationship (e.g., licensees, subsidiaries, joint ventures) as long as the transferred material belonged to a class enumerated in the application and served the company's predefined mission. These licenses would be of unlimited duration, but subject to periodic review. Transfers to multiple destinations would be authorized provided these were listed on the application. This proposal has support in the House and Senate but is opposed by the administration.

The COL would meet part of the demand by U.S. businesses for increased predictability, efficiency, and flexibility in the export licensing process. And, as in the case of suggestions for eliminating West-West licensing requirements, Government paperwork could be significantly reduced. However, this proposal is bound to arouse the opposition of those who believe that U.S. security would not be well enough protected by controls which would be essentially self-imposed and self-patrolled by private companies.

PROPOSALS DESIGNED TO IMPROVE THE ENFORCEMENT OF U.S. EXPORT CONTROL LAWS

Chapter III has discussed criticisms recently directed at export control enforcement efforts, and a forthcoming GAO report will assess the effectiveness of existing enforcement procedures. There is widespread agreement that such efforts need to be improved. Indeed, this is one issue on which the opinions of trade controllers and promoters alike are in substantial harmony. As might be expected, however, specific suggestions on how best to enhance enforcement activities vary greatly. One issue which can be expected to receive prominent attention, for instance, is that greater clarity in the laws and regulations could substantially increase voluntary compliance and thereby greatly facilitate enforcement. This section reviews other proposals which have emerged in this area.

Organizational Issues

Perhaps the most fundamental dispute among those who agree that the system needs improving is over where the primary responsibility for export control enforcement and compliance should rest. The three leading suggestions are that it remain with DOC; that it be moved to Customs; or that it become part of a new OST. The latter option is subject to the difficulty discussed above, i.e., the present resistance to the notion of creating new government agencies. The Administration clearly favors the first proposal, acknowledging DOC's poor record in the past, but claiming substantial improvements in recent months. Some of those who have investigated enforcement and compliance activities (notably the Senate Permanent Subcommittee on Investigations) have recommended that the responsibility be assumed by the Customs Service. Their reasoning, as presented in chapter III, is that Customs has better domestic and foreign resources for and experience in investigating export control violations; and that DOC enforcement activities can hardly help but be weakened by the Department's dual mission to simultaneously promote and control trade.

Powers and Authority

There is also a fair degree of consensus on the fact that Government power to investigate export control cases should be enhanced, regardless of where primary enforcement responsibility is lodged. Thus, legislation has been introduced in the House (H.R. 1566) which would keep the compliance function in Commerce, but would authorize DOC employees to: 1) carry firearms and make warrantless arrests; 2) execute warrants; and 3) conduct warrantless searches and seizures on the basis of probable cause. Proposals to transfer enforcement to the Customs Service have also recognized existing limitations in the powers and flexibility of investigators. These problems are addressed in Senator Nunn's bill, the "Export Administration Enforcement Act of 1983" (S. 407) which gives Customs officers broad power to search persons, vehicles, vessels, packages, and containers where there is reasonable cause to suspect that goods or technology will be illegally exported.

These provisions address the problem that existing law inhibits the conduct of export control-related investigations by constraining agents' intervention. But increasing search and seizure powers too far is likely to meet with resistance. One response to complaints that Operation Exodus has seriously interfered with routine shipment of goods, for instance, is a proposal by Mr. Bonker that random inspections in the enforcement of export controls be prohibited, and searches limited to cases where specific information of possible violations has been received.

Other suggestions may be found in the administration's bill. It contains a criminal forfeiture provision authorizing the Government to seize any proceeds of a violation of national security controls. This provision aims to reduce the monetary incentives to violate export controls. The administration's bill would also authorize the President to prohibit foreign violators of U.S. national security controls from exporting to the United States. The administration views this provision as a forceful means of penalizing foreign companies that violate U.S. national security controls. However, it has already met with strong European opposition.

Resources

A final issue on which there appears to be substantial agreement is that additional resources should be devoted to enforcement. But while the level of effort funded in DOC has been obviously inadequate, it would be a mistake to believe that money can solve export control enforcement problems, or that there is a necessary correlation between the budget and the results of an enforcement program. There are three reasons for this situation. First, so long as various kinds of intelligence and investigation activities are dispersed within the Government, interagency cooperation is vital. Larger budgets will not necessarily solve problems of duplication or turf issues. Second, an important part of the enforcement effort depends for its success on the cooperation of foreign officials. The degree of this cooperation may partly reflect the scope of U.S. efforts, but it is also directly related to the larger diplomatic issues discussed in chapter V.

Finally and most importantly, no enforcement effort, no matter how massive, can hope to detect and prosecute all, or even most, illegal shipments. An enforcement program must be visible and successful enough to pose a serious deterrent, but it should also recognize some point beyond which the cost/benefit ratio produces diminishing returns. The very nature of sensitive technology—e.g., the size of microprocessors; the portability of data; the volume and variety of computer software—makes much of it relatively easy to carry undetected and/or extremely intractable to well-defined control guidelines.

A FINAL NOTE

Few of the policy options discussed in this chapter are new. Similarly, the basic policy orientations have long constituted the central themes of the export control debate, and it is highly unlikely that September 1983 will see the passage of a radically different export administration law. However, this hardly means that the present process is trivial or irrelevant. Congress presently faces both a great opportunity and a great danger: it can craft legislation which expresses a coherent stance on trade with the U.S.S.R.—be it more restrictive or liberalizing—and contains provisions designed to ensure as far as possible that the execution of the law is in accordance with that stance; or it can compromise in ways that fragment its message and vitiate efforts to pursue consistent policies. As this report has already noted, the stakes are now higher for all parties interested in U.S.-Soviet trade.

Appendix

Other East-West Trade Issues

Appendix

Other East-West Trade Issues

This report is not intended to be a comprehensive analysis of U.S. trade relations with the Communist world. Rather, it focuses on U.S. trade policy toward the U.S.S.R., as governed by the Export Administration Act (EAA). Of the important issues which lie outside the narrow scope of this study, two seem to merit particular attention: U.S. trade relations with the People's Republic of China (PRC) and the role of credit in East-West trade. These are the subject of this appendix, which seeks to document significant developments in these areas over the past 4 years.

THE PEOPLE'S REPUBLIC OF CHINA

In 1972, the U.S. Government, which had previously banned virtually all trade with China, embarked on a policy of "evenhandedness" in economic relations with China, i.e., treating it and the Soviet Union in the same fashion. This policy began to erode in 1978, when President Carter imposed foreign policy controls on certain oil and gas equipment exports to the Soviet Union, but not to China or to other Communist countries.[1] The Soviet invasion of Afghanistan accelerated the process of differentiation. The vehemence of the Chinese reaction against the U.S.S.R. assuaged, even if it did not entirely remove, lingering doubts about China's commitment to opposing the Soviet Union and seeking closer relations with the United States. Deepening Sino-American political relationships led to a liberalization of U.S. export controls, the first concrete indication of which was Defense Secretary Harold Brown's announcement that the United States was willing to consider licensing exports of some dual-use military equipment to China on a case-by-case basis. Examples of possible exports were trucks, communications equipment, and early warning radars. Furthermore, in January 1980, Congress approved a trade agreement with China, and the U.S. Government decided to license Chinese purchases of nonlethal military support equipment on the Munitions Control List. Since 1978, U.S.-PRC trade has grown more than fourfold in nominal terms. (See table 9.)

The new U.S.-PRC trade policy has been reflected in the reclassification of China in U.S. export control regulations so that it is no longer treated in the same fashion as the U.S.S.R.[2] The change was justified on the basis of the differing grounds on which the identification of exports detrimental to U.S. security is carried out in the cases of China and the Warsaw Pact countries. These differences were reflected in the approval of licenses for secure communications equipment for Chinese diplomatic facilities in the United States, computers for use in metal refineries, peripheral enhancements for computers previously exported to China by U.S. firms, technology for manufacturing transport helicopters, and some integrated circuits. In September 1980 the Carter administration announced new licensing guidelines. They included the following:

- Licenses would no longer be automatically denied when the end-user was engaged in military activities.
- Licenses for equipment or data for manufacturing military items would probably be denied if the military items themselves would not be approved for export.
- Licenses would not be approved if the potential military application was "so significant that the export would present an unacceptable risk regardless of the stated end-use."[3]

The Reagan administration's review of export licensing policy included reconsideration of exports to the PRC. One of the first indications of the new policy was the announcement in June 1981 of President Reagan's decision to liberalize export

Table 9.—U.S.-PRC Trade, 1978-82
(million U.S. dollars)

	U.S. Exports	U.S. Imports	Trade Turnover
1978	$818.24	$323.95	$1,142.19
1979	1,716.50	592.28	2,308.78
1980	3,748.99	1,058.34	4,807.33
1981	3,598.60	1,895.33	5,493.93
1982	2,904.54	2,283.70	5,188.24

SOURCE: U.S. Department of Commerce.

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[1] U.S. Congress, House Committee on Foreign Affairs, Subcommittee on Europe and the Middle East, *An Assessment of the Afghanistan Sanctions: Implications for Trade and Diplomacy in the 1980's* (Washington, D.C.: U.S. Government Printing Office, 1981), pp. 115-116.

[2] 45 FR 27922.

[3] "New Guidelines Set for Exports to China," *Business America*, Oct. 6, 1980, p. 20.

controls, to make China eligible to purchase military equipment, and to ask Congress to remove restrictive clauses from the legislation that provide for equal treatment of the PRC and the Soviet Union. In July 1981, the Department of Commerce (DOC) announced more specific guidelines, stating a "predisposition" to approve exports at twice the technical level previously exportable to China.[4] Applications for exports at higher levels would be considered on a case-by-case basis. In addition, DOC announced that the Department of Defense (DOD) would only review applications for exports subject to CoCom controls. Unilateral review by Commerce was expected to significantly speed the licensing process.

The new guidelines were confirmed and expanded on December 29, 1981.[5] According to the *Federal Register* notice, the Reagan administration determined that:

> . . . it is in our national interest to foster a strong, secure and friendly China, capable of deterring potential aggressors and contributing to peace and stability, and to participate in China's economic development for the benefit of China and for the United States. The Administration recognizes the need for a clear trade policy that will lend flexibility and predictability to American business in trading with China, while ensuring our national security, promoting U.S. foreign policy and protecting U.S. commercial interests.

This statement of policy notwithstanding, applications are to be reviewed to ensure that exports to the PRC are consistent with the policy expressed in EAA of restricting the "export of goods and technology which would make a significant contribution to the military potential of any country or combination of countries which would prove detrimental to the national security of the United States." The regulations reaffirmed the 1980 guidelines and explicitly doubled the technical level for permissible exports to the PRC.

U.S.-PRC trade policy under the Reagan administration has not always appeared consistent. In June 1982, Ambassador Stoessel speaking on behalf of Secretary Haig to the National Council on U.S.-China Trade, characterized China as "a friendly country with which we are not allied, but with which we share many common interests."[6] Nonetheless, at about the same time the administration reportedly tightened licensing policy towards the PRC in response to intelligence reports of technology leakage to it and the Soviet Union.[7] Yet, in September 1982, the Reagan administration licensed the sale of a sophisticated computer, used in the United States for simulating missile flights, to the PRC.

U.S. exporters and others have also charged that U.S. licensing policy towards China remains unclear. In their view, licensing decisions have been speeded somewhat, but still remain slow, and licensing has not been liberalized as much as the new policy would suggest, preventing U.S. exporters from competing effectively. They suggest several reasons: First, despite the announced change in policy, DOD is still reviewing about the same number of applications. Second, licensing agencies interpret the new guidelines differently. Commerce has a "presumption of approval" in cases falling within the "2-times guideline," but Defense only a "predisposition" to approve. Third, DOD still takes a tough position on PRC trade.[8] In addition, they argue that unilateral U.S. controls on software place them at a disadvantage vis-à-vis other Western firms and that there are no clear guidelines for software exports.

In the opinion of many U.S. exporters, the fundamental problem is the ambiguity of U.S. policy. This view was forcefully expressed by an official of the U.S.-China Trade Council in testimony before Congress. Commenting on the December 29 Regulations, he argued that:

> The new regulations thus give with one hand and take away with the other. This leaves the business community and the bureaucracy to work with a system that seeks to "foster a strong, secure, and friendly China capable of deterring potential aggressors," but prohibits contributions to China's military potential. Making this policy even more difficult to implement is that, because China is classified as a country to which exports are controlled for national security reasons, the Secretary of Defense is **required** . . . to recommend disapproval of any export of goods or technologies that would make a significant contribution to China's military potential. With the question of whether China is a friend or an adversary unresolved, it is not surprising that there are interagency disputes over implementation. Nor is it surprising that technical guidelines set out under administration policy have not been followed.[9]

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[4] U.S. International Trade Commission, *29th Quarterly Report to Congress and the Trade Policy Committee on Trade between the United States and the Nonmarket Economy Countries During 1981* (Washington, D.C.: March 1982), pp. 33-34.

[5] 46 FR 62836.

[6] Reprinted in *Department of State Bulletin*, vol. 82, No. 2064, July 1982, p. 50.

[7] Michael Weisskopf, "Chinese Trade Issues Seen Snagging Shultz," *Washington Post*, Jan. 31, 1983, p. A12.

[8] Chris Brown, "The Problems With Country Group P," *China Business Review*, vol. 9, No. 2, March-April 1982, pp. 21-22.

[9] "Prepared Statement of Roger W. Sullivan, Executive Vice President of the National Council for U.S.-China Trade, before the Subcommittee on International Economic Policy and Trade, Committee on Foreign Relations, U.S. House of Representatives, Mar. 8, 1983, mimeo., p. 2. (Emphasis in the original.)

Others in the United States have the opposite concern; i.e., that export controls for the PRC have been liberalized too far.

Chinese officials have been reported to be displeased at U.S. licensing policy, particularly at delays in licensing. Referring to this issue, Huang Hua, the former Foreign Minister, told the Council on Foreign Relations, "In view of the recent developments . . . one cannot help asking, 'Does the United States view China as a friend or a foe?' "[10]

An important test of U.S. licensing policy towards China will be license action for a satellite ground station to receive and process data from the LANDSAT-D satellite, which provides agricultural and geophysical data. The computers and other equipment for the ground station are not considered to have direct military applications, but in the view of many U.S. experts, could conceivably be put to military use. The issue first arose during the Carter administration. On January 31, 1980, it signed an agreement that would allow the purchase of a ground station, but the PRC delayed the transaction, probably because of a shortage of hard currency. On October 8, 1982, the Reagan administration announced that it was prepared to consider applications to export satellite ground stations and notified potential sellers that technical and procedural guidelines were available.[11] On January 17, 1983, China announced that it had signed a contract with a U.S. firm, Systems & Applied Sciences Corp., to purchase the necessary equipment. Although the administration has approved the sale in principle, the firm will have to apply for a license.

Technology sales cannot be viewed in isolation from other aspects of U.S.-PRC relations, which have recently deteriorated. On the U.S. side, there are serious concerns about the PRC's basic orientation in international politics and about reports that it has supplied nuclear aid to South Africa and Pakistan. On the Chinese side, there are concerns about U.S. policy towards Taiwan, textile exports to the United States, and policy on sales of nuclear equipment.

Thus, U.S. licensing policy towards the PRC has been significantly liberalized under both the Carter and Reagan administrations. This policy, which was effectuated through administrative measures, illustrates the large degree of leeway conferred on the President by EAA. Since this policy could be reversed, those favoring greater liberalization in practice and in policy advocate statutory changes.

CREDIT ISSUES

The Polish debt crisis, Romania's repayment problems, and efforts by both the Carter and Reagan administrations to curb or raise the cost of Western credit to the Soviet Union all reinforce the importance of the role of credit in East-West trade. U.S. concerns about future Eastern bloc creditworthiness now extend beyond Poland and Romania to countries such as the Soviet Union and the German Democratic Republic, once thought to be excellent credit risks. Part of this concern centers on the danger of "reverse leverage," in which the borrower acquires influence over the lender through the very size of its debt.

It is possible that slower growth and declining creditworthiness will moot the issue of private and official credit to the East, as bankers and governments focus on collecting old loans rather than extending new ones. Many believe that the Eastern countries' shortage of hard currency makes credit the most important of all Western commodities to control. Closely related to this point of view is one that holds that if trade is to be used as an instrument of foreign policy, controls should be placed not simply on exports, but also on credits and imports as well. However, the United States alone has little leverage in this area: the Jackson-Vanik amendment precludes the extension of official credits to most nonmarket economy countries, and except in time of war or national emergency there is no legal mechanism for restricting private credits, although the Government may informally request U.S. banks to use restraint in their lending policies.

Official Credits to the Soviet Union

Under the Carter administration, the United States launched a dual effort to curb or raise the cost of credit to the Soviet Union. One part entailed negotiations within the Organization for Economic Cooperation and Development (OECD) to persuade members to raise interest rates from the levels set in 1978 in the Arrangement on Officially-Supported Export Credits. Adhered to by 22 countries, the Arrangement specifies minimum rates for official credits to all nations. Countries are assigned to one of three categories (relatively rich, intermediate, and relatively poor) on the basis of per capita national income.[12] A second effort focused directly on credits to the Soviet Union.

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[10] Quoted in Weisskopf.

[11] 47 FR 44595.

[12] Besides the United States, the participants in the Arrangement are the European Economic Community, Australia, Austria, Canada, Finland, Japan, New Zealand, Norway, Portugal, Spain, Sweden, and Switzerland.

Reducing subsidized credit to the Soviet Union poses technical and political difficulties for the United States. The former involve the problem of defining and measuring subsidies. There are at least two ways of defining a subsidy.[13] The first is Government actions to reduce the cost of funds to the borrower, including direct payment of a percentage of the interest rate on credits offered by commercial banks, official credits at less than market rates, and reimbursement of officially backed credits in the case of a default. In the past, guarantees on loans to the Soviet Union would not necessarily have lowered the effective rate of interest since the U.S.S.R. has been a good credit risk. A second definition of subsidy is the net transfer of resources from tax receipts from the lender country to the borrower.

The difficulties raised by these various definitions are illustrated by the disagreement on whether the West German Government subsidizes credit to the Soviet Union. West Germany does not extend direct credits, but guarantees export financing through the Hermes insurance program. Many in the United States consider Hermes guarantees to be subsidies, but the Germans argue the contrary.[14]

A more serious source of difficulties on the subsidy issue is the divergence of Western views. The Reagan administration prefers to allow market forces to set credit rates. But most other countries' normal credit policies toward all sovereign borrowers, including the Soviet Union, could be termed "preferential."[15]

Following the invasion of Afghanistan, the Carter administration requested that its allies halve official credits and guarantees to the Soviet Union and end their credit subsidies. This effort yielded modest results: The Common Market agreed in February 1980 not to offer long-term credits to the Soviet Union at rates lower than the 7.75 percent specified in the Arrangement. The Italian Government delayed negotiating a credit agreement with the U.S.S.R.; the British Government decided not to renew a line of credit (but many observers noted that the Soviet Union had not used all of it); and the Japanese Government delayed issuing new credits for joint projects with the Soviet Union for several months.[16]

In addition, the Carter administration urged increases in OECD Arrangement rates. The participants agreed on slight increases, effective July 1, 1980, and on further negotiations in the fall. But the fall negotiations failed, despite agreement in the North Atlantic Treaty Organization (NATO) ministerial meeting and at the Venice Summit that an acceptable means of bringing the rates "closer" to market terms should be reached by December 1, 1980. At French insistence, the Common Market offered only a small increase, which the U.S. termed "grossly inadequate." Japan—justifiably in the U.S. view—declined to accept the agreement, which would have forced it to charge above market rates.[17]

The Reagan administration believes that Western governments should not offer any subsidies on credits to the Soviet Union, which after all, is responsible for rising Western defense expenditures. In the administration's view, the slowdown of Soviet economic growth and hard currency earnings in the 1980's will have the effect of making the U.S.S.R. less creditworthy and more eager to borrow from the West, especially at rates subsidized by Western governments. The administration is also concerned about the possibility of reverse leverage.[18]

The Reagan administration pressed for increases in the OECD rates on the grounds that the Arrangement allowed for an estimated $5.5 billion in subsidies in 1980.[19] At the initiative of the United States, the participants agreed to raise the minimum interest rate from 7.5 to 10 percent, effective November 16, 1981.

During the spring of 1982, the administration also attempted to persuade the allies to reduce or raise the cost of official credit to the Soviet Union. Several U.S. delegations visited West European capitals reportedly with the following agenda:

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[13] U.S. Library of Congress, Congressional Research Service, *The Premises of East-West Commercial Relations: A Workshop Sponsored by the Committee on Foreign Relations, United States Senate* (Washington, D.C.: U.S. Government Printing Office, 1983), pp. 68-70.

[14] See, for example, Axel Lebahn, "Financing German Trade With the East," *Aussenpolitik*, vol. 33, 1982, p. 129.

[15] *Premises of East-West Commercial Relations*, op. cit., pp. 70-71.

[16] U.S. Congress, House Committee on Foreign Affairs, Subcommittee on Europe and the Middle East, *An Assessment of the Afghanistan Sanctions: Implications for Trade and Diplomacy in the 1980s*, Committee Print, 97th Cong., 1st sess., April 1981 (Washington, D.C.: U.S. Government Printing Office, 1981), pp. 106-108.

[17] U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, Subcommittee on *International Finance and Monetary Policy, International Affairs Functions of the Treasury and the Export Administration Act*, hearings, 97th Cong., 1st sess., Apr. 30, 1981 (Washington, D.C.: U.S. Government Printing Office, 1981), pp. 19-21.

[18] "Testimony of Ernest B. Johnston, Deputy Assistant Secretary of State for Economic and Business Affairs, before the House Committee on Foreign Affairs Subcommittees on International Economic Policy, and Trade and on Europe and the Middle East, May 25, 1982, mimeo., p. 12.

[19] *International Affairs Functions*, op. cit., p. 18. The estimate is by the OECD staff.

- limit subsidized credits by raising the interest rate charged, requiring larger downpayments, or limiting the share of a project that could be financed through official credits;
- establish a mechanism to monitor a program for reducing subsidized credits;
- place the Soviet Union in a separate category for all economic relations and coordinate the flow of Western credits to it; and
- place a temporary moratorium on credit to the Soviet Union while credit issues were discussed.[20]

The U.S. team was not able to achieve its goal of securing an agreement before the Versailles economic summit, and the attitude of the French Government was widely thought to have been the major barrier. At U.S. insistence, the issue was placed on the summit agenda. Although undoubtedly weaker than the United States had hoped, language on credit was included in the communique issued at the end of the meeting. It read as follows:

> . . . taking into account existing economic and financial considerations, we have agreed also to handle cautiously financial relations with the U.S.S.R. and other Eastern European countries in such a way as to ensure that they are conducted on a sound economic basis, *including also the need for commercial prudence in limiting export credits.* (Emphasis added.)

The participants also agreed to exchange information in OECD on credits and other aspects of commercial relations with the East. As was described in chapter V, whatever partial consensus achieved here was challenged less than 2 weeks later by French President Mitterrand, who rejected the idea of limiting credits to the Soviet Union.

Mitterrand's statement notwithstanding, the participants in the OECD Arrangement, including France, did agree to changes which effectively raised the minimum interest rate charged the Soviet Union to 12.15 percent. This was accomplished by changing the U.S.S.R.'s classification from "intermediate" to "relatively rich" and by raising minimum interest rates for groups of countries in these categories. The new interest rates, which went into effect on July 5, 1982, are shown in table 10.

Administration officials have expressed satisfaction with the revised OECD agreement, but the United States did not achieve all that it sought.

Table 10.—Minimum Interest Rates Under the OECD Arrangement[a]

	2 to 5 years	Over 5 to 8½ years	Over 8½ to 10 years
Relatively rich	12.15	12.40	N/A[c]
Intermediate[b]	10.85	11.35	N/A[c]
Relatively poor . . .	10.00	10.00	10.00

[a] These rates do not apply to official credits in yen nor to credits for exports of certain aircraft or nuclear powerplants.
[b] From July 5 to Dec. 31, 1982, there were different rates for countries that had previously been in the intermediate categories and those that had been "graduated" from poor to intermediate.
[c] Relatively rich countries and "old" intermediate are ineligible for credits over 8½ years. "New" intermediate countries remain eligible for credits up to 10 years.

SOURCE: Export-Import Bank.

In addition, some are skeptical about compliance. They assert that it is easy for a country to circumvent the agreement by lowering the price charged for equipment while offering the agreed interest rate, or by "grandfathering" a credit agreement.

The Polish Debt

At the end of September 1982 Poland's debt to the West was estimated at $25 billion, of which some $17.5 billion is owed to Western governments or is guaranteed by Western governments. About $7.5 billion is private, unguaranteed debt. As table 11 demonstrates, U.S. entities hold a relatively small share of Polish debt.

The United States and other Western countries rescheduled official Polish credits falling due in 1981, but, in response to the declaration of martial law in Poland, declined to reschedule debts falling due in 1982. At a meeting in early January 1982, the NATO ministers agreed not to reschedule these debts, which are thought to total about $10 billion, until the situation in Poland was normalized. President Reagan has set three conditions for U.S. rescheduling of Poland's official 1982 debts: 1) an end to martial law, 2) release of political prisoners, and 3) resumption of the Government's dialog with Solidarity and the Church. The administration does not consider the Polish Gov-

Table 11.—Poland's Debt to the United States, as of September 1982 (billion U.S. dollars)

Nonguaranteed loans by private creditors (primarily commercial banks)	$1.197
Direct credits and guarantees from CCC	1.701
Export-Import Bank loan	0.247
AID loan	0.006
Total	$3.152

SOURCE: U.S. Department of Treasury, Office of East-West Economic Policy.

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[20] Christopher Madison, "East-West Trade Okay, Says U.S., But It Shouldn't Be on the Cuff," *National Journal,* Aug. 21, 1982, p. 1464 and John Plender, "East-West Trade: An End to Business as Usual," *Economist,* May 22, 1982, pp. 70, 72.

ernment's decision to lift martial law in December 1982 sufficient, particularly since many martial law restrictions were added to the legal code. While Poland's official debts for 1982 have not been rescheduled, it did reach a rescheduling agreement with commercial banks for debts falling due in 1982.

To avoid a formal default on the loans guaranteed by the Commodity Credit Corporation (CCC), the Reagan administration issued emergency regulations on January 29, 1982. Under the old CCC regulations, a bank seeking reimbursement for an agricultural credit guaranteed by the Corporation had to issue a "notice of default." Under the new regulations, CCC could reimburse the bank without this notice. Without a formal declaration of default, other holders of Polish debt would not be able to invoke the cross default provisions of their loan agreements or to start legal proceedings to seize Polish assets. Some Members of Congress and others criticized both the manner in which the change was introduced and the Reagan administration's decision not to declare an immediate default.

Advocates of forced default have charged that allowing CCC to cover loan guarantees amounts to a "bail out" of bankers who made unwise loans and a subsidy for a repressive regime. In their view, a declaration of default on CCC obligations, which would probably be followed by a default on all Polish debts, might compel the Soviet Union to cover Poland's debts. In this case, the result might well be fewer resources available for the Warsaw Pact. Those officials opposed to forcing a default argue that Poland is under more pressure since it is making some, albeit small, repayments and that it would have no incentive to repay if a formal default were declared. In their view, the latter situation would effectively vitiate Western influence in Poland and might have serious financial repercussions for West European banks and for Western governments, which would have to pay billions on guaranteed loans. They also argue that unilateral action by the United States would probably compromise U.S. efforts to forge allied consensus on the issue and might well strain the alliance.[21]

A test of congressional opinion on forced default came during the summer of 1982, when congressional advocates of forced default succeeded in adding a provision to the Supplemental Appropriations Act of 1982 (Public Law 97-257), which prohibits the use of funds to reimburse U.S. banks for loans guaranteed by the Government unless it declares Poland in default or unless the President provides Congress with a monthly written explanation of how not declaring Poland in default advances the U.S. national interest. This provision, which was introduced by Senator Helms, applies to fiscal year 1983. It represents a continuation of a similar amendment to the Urgent Supplemental Appropriations Act of 1982 (Public Law 97-216), which was introduced by Senator Kasten and applied to fiscal year 1982.

The Polish debt issue is only temporarily in abeyance. Absent liberalization by the Polish regime or a change in Western policy, Poland's official debts falling due in 1982 and 1983 will not be rescheduled. Thus, formal default remains a possibility, although pressures to reschedule are likely, especially if the Polish regime shows signs of liberalizing its policies. Some argue that rescheduling could benefit the West if economic or political conditions were attached.

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[21] For a more detailed analysis of the arguments pro and con, see U.S. Library of Congress, Congressional Research Service, Office of Senior Specialists, *Rescheduling the Polish Debt*, Issue Brief No. 82082, Jan. 27, 1983 [prepared by John P. Hardt and Donna L. Gold], pp. 5-6.

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